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KEYNESIAN ECONOMICS

FULL VIEW AT A GLANCE

By

T N SACHDEVA, M A , B Com

*Principal and Head of the Department of Economics
New P T College, Defence Colony
New Delhi*

*Editor Competition Review
and*

S K SACHDEVA

M A B A (Hons) M B A D B M (With Distinction)

Director of Studies

*Competition Review Institute
43/4 East Patel Nagar*

The primary object has all along been to assist the students to face the examination with bold fearlessness. If the logic be sharp and cutting, the language lucid and sweet and the angle of treatment, fresh and buoyant, learning becomes a rare pleasure. The students can conveniently combine profit and pleasure in reading the present volume on *Money, Employment and Fluctuations*.

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FULL VIEW AT A GLANCE

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PREFACE TO THE SEVENTH EDITION

Keynesian Economics is the Seventh edition of our popular book "Money, Employment and Fluctuations". The constant threat of fluctuations creates the desire for stability and induces the authorities to look for measures to stabilise income at the level of full employment. Appropriate monetary measures have to be undertaken towards this end. The seventh edition elucidates further the most complicated of issues that arise in this connection and throws a clear light on how to tackle difficult university questions. Things have been refined, enlarged and brought up to date in view of the valuable experience of the past to make the book dependable, all the more. Nevertheless, the suggestions of students in order to improve the book still further are always welcome.

PREFACE TO THE FIRST EDITION

The appearance of a new book on a subject on which there is already a surfeit of literature calls for a rational convincing explanation. There need, however, be no apology in the least for presenting to the student community this volume which is an attempt to discuss the problems of Money, Employment and Fluctuations from an entirely new angle, the aim being to see the problems from the standpoint of economic growth rather than economic stability. Heretofore tradition is obsessed with the problems of stability. It is only during recent years in the wake of the problems, following the close of the Second World War that a new angle has come into existence. There is still plenty of scope for re-examining all the old problems with a fresh vision.

The primary object has all along been to assist the students to face the examination with bold fearlessness. If the logic be sharp and cutting, the language lucid and sweet and the angle of treatment, fresh and buoyant, learning becomes a rare pleasure. The students can conveniently combine profit and pleasure in reading the present volume on *Money, Employment and Fluctuations*.

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"The quantity equations themselves are nothing more or less than shorthand expression designed to indicate the nature of the variables whose operations can be shown to influence prices." (Karnatak 1960)

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"The quantity equations remain the most illuminating summary of the forces determining the general level of prices." Examine critically the above statement. (Agra 1959)

Critically examine the 'Quantity Theory of Money'. (Rajasthan 1959)

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(Poona 1965)

Monetary policy should seek to control nothing less than the state of liquidity of the whole economy. Discuss.

(Poona 1965)

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Q. 39 Outline the main considerations which should be borne in mind when a government is choosing between a policy of devaluation and one of using import restrictions (whether tariffs or quotas) in order to deal with balance of payment difficulties

(London B Sc, 1964)

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Q. 40. "The money market structure in India, loose as it is, is comparatively well-developed in terms of organised relationships and specialisations of functions " Elucidate

(Madras 1961)

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Q. 41 Examine the working of the Indian money market and suggest remedies for its improvement.

(Nagpur 1960)

Sketch in broad outline the structure and functioning of the money market in India at present and discuss how far it is sensitive to Reserve Bank action.

(Poona 1960)

What are the characteristics that distinguish developed from under-developed money market ?

(Nagpur 1950)

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Q. 42 What factors determine the community's asset preference between money, bonds, equity shares and gold ? What phenomena in the Indian economy would your answer provide an explanation for ?

(Delhi 1965)

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Q. 43 "Monetary policy has the advantage over fiscal policy that it is more flexible and affects a broader stratum of economic units " Discuss.

(London B Sc 1964)

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Q. 44. Differentiate between quantitative and qualitative credit controls. Which of them is more effective in the case of an underdeveloped country ? Give reasons for your answer

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PART II

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(London B Sc, 1964)

p. 1

Q. 2. In what respects should a theory of investment decisions in the private sector be modified in its application to public sector investment ?

(Delhi 1963)

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Q 3 "A monetary economy is essentially one in which changing views about the future are capable of influencing the quantity of employment and not merely its direction."

Discuss in the light of the above, whether India can be termed a monetary economy
(Delhi 1962, Bombay 1960)

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Q 4. "In underdeveloped densely populated countries, policies based on welfarism benefit particular groups of workers at the cost of the labouring class as a whole" Comment
(Bombay 1962)

p 13

Q 5 'While Keynes' three basic factors, the propensity to consume, the marginal efficiency of capital and the interest rate are independent variables, they are nevertheless closely inter-related' "Develop this statement

(Mysore 1957)

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Q 6 Examine the effect of general wage cut on the volume of employment
(Delhi 1960)

"It is impossible to increase employment, through a reduction in money wages" Give reasons for your answer
(Gauhati 1959)

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Q 7 'So long as there is unemployment, employment will change in the same proportion as the quantity of money and when there is full employment, prices will change in the same proportion as the quantity of money' Discuss

(Bombay 1957)

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Q 8 'There exists in developed capitalist societies a mechanism whereby starting from a position of serious unemployment, full employment tends to be achieved' Discuss
(Delhi 1965)

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Q 9 "The Keynesian theory is a general theory of income determination. It is valid for a developed as well as an underdeveloped economy" Discuss. Is there a case for a separate theory for an underdeveloped economy?

(Bombay 1958)

p 37

Q 10 Examine the dependent and independent variables of the Keynesian theory of employment. Is the Keynesian system unstable?

(Gujarat 1958)

Discuss the Keynesian theory of employment

(IAS 1958)

"Employment is determined by aggregate demand which in turn depends on the propensity to consume and the amount of investment at a given time" Elucidate

(Mysore 1955, '57)

p 42

Q 11 Keynes' General Theory transformed economics into a theory of output and employment as a whole. Elaborate
(Bombay 1959)

Show how the total output and employment in a country depends upon marginal propensity to consume, the marginal efficiency of capital and the market rate of interest. (Gauhati 1959)

To what extent, and in what manner can the Keynesian analysis of the determination of income in the short period be used to explain changes in income over time? (Calcutta 1957)

Examine the inter-relation between savings, investment and employment. (I A.S. 1957)
p. 50

Q 12 "The introduction of Keynes' consumption function into the theory of acceleration enabled economists to explain the turning points of general economic activity without resorting to limiting factors." Discuss (Karnatak 1960)

Show how Keynes' theory of consumption tends to encourage radical policies while his theory of investment tends to encourage conservative policies. (Bombay 1959)

Explain the doctrine of consumption functions and show how this doctrine occupies a pivotal position in Keynes' analysis. (Karnatak 1959)

Examine the uses of "propensity to consume" in the Keynesian macro-economic process. (Mysore 1959)

What do you think of the consumption function as a tool in economic analysis? (Punjab 1959)

Why is the propensity to consume considered one of the strategic relationships affecting the behaviour of an economy? What significance would you attach to the concept of the optimum propensity to consume? (Delhi 1957)
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Q. 13. Trace the effect of investment on employment and output. (Delhi 1960)

What are the causes of the changes in the volume of investment?
How do these changes affect employment and economic activity? (Rajasthan 1959)

Explain how the rate of interest affects investment (W B C S 1958)

Analyse the main factors that are likely to influence the investment demand schedule in an economy and give in this connection your views about the interest-elasticity of investment. (Delhi 1958)

Examine the Keynesian theory of investment with particular reference to the influence of the rate of interest. (Gujarat 1958)

Examine the grounds for, and the implications of, the statement that "the marginal efficiency of investment is not independent of the level of income as of changes in income" (Calcutta 1957)

What are the arguments that can be advanced for and against the following proposition:

(a) Investment is a function of the level of output rather than of the rate of growth of output;

(b) Investment plans are affected by supply of the finance and refraining from consumption provides the finance ? (Delhi 1957)

The marginal efficiency of capital in conjunction with the rate of interest determines the amount of new investment Discuss. (Mysore 1956)

p 66

Q 14 Examine the effects of technical progress on employment and wages (Bombay 1962)

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Q 15 One who tries to save destroys real capital Examine the validity of the statement (Karnatak 1960)

Saving is private virtue but a public vice Discuss (Karnatak 1959)

p 78

Q 16 State Keynes' views on the equality of savings and investment and show whether they would necessarily be equal under macro dynamic conditions

(Allahabad 1960)

Savings and investment are equated by variations in the level of income

Savings and investment are equated by variations in the rate of interest

Discuss (Gauhati 1959)

In what sense must savings and investment be always equal ? Has such equality any relevance in the determination of monetary policy ?

Savings and investment are always equal Savings and investment are equal only in equilibrium Do you think there is a possibility of reconciling these two statements ?

In the light of the Keynesian definition consider how far the equality between savings and investment in equilibrium is meaningless (Allahabad 1958)

Show how according to Keynes an economy can attain stable equality between savings and investment in equilibrium

The so called equality between saving and investment is meaningless

Discuss (Delhi 1956)

p 83

Q 17 Examine the various concepts of the multiplier Discuss the applicability of the Keynesian theory of the multiplier to an underdeveloped economy (Gujarat 1959)

Discuss the theory of the multiplier with special attention to the leakages and the factors which interfere with its working in underdeveloped countries

(Punjab 1958)

p 91

Q 18 Examine the role of expectations in determining output and employment (Bombay 1958)

Examine the appropriateness of Keynesian analysis of the role of expectation as a determinant of investment (Calcutta 1956)

p 97

Q 19 Do you agree with the view that economic fluctuations are a necessary condition of economic progress ? Give reasons (Poona 1962)

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Q. 20. "Prosperity is the cause of depression" Comment. (Kerala 1961)
p. 105

Q. 21. Evaluate the accelerator as a cycle maker. (Poona 1961)

What is meant by the term acceleration-coefficient? Is it correct to say that different cycles derive their character from the value attached to this coefficient? What are the different possibilities in this respect? (Gujarat 1958)

"The acceleration principle helps to shed light on some of the most widely observed characteristics of business cycle" Elucidate. On what factors will the strength of the acceleration effect depend? (Karnatak 1959)

Does the acceleration principle offer an adequate explanation of the trade cycle? (Punjab 1958)

p. 109

Q. 22. "The theory of the multiplier and the theory of the accelerator are two sides of the theory of fluctuations, just as the theory of demand and the theory of supply are two sides of the theory of value." (Hicks) Discuss

(Bombay 1958)

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Q. 23. Examine critically the over-investment theory of business cycles.

On what grounds would you regard the monetary, the under-consumption, and the over-investment theories, taken independently, as inadequate explanations of the phenomenon of business cycles? Indicate whether, and if so how, they could reconcile. (Delhi 1957)

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Q. 24 Explain the concept of forced savings. How has this concept been used in explaining the occurrence of crises? (Gujarat 1960)

Give a brief account of the saving process. Should saving lead to deflation and to economic stagnation? p. 126

Q. 25 Recommend a suitable fiscal policy to curb the instability generated by inflation (Karnatak 1960)

Discuss the case for and against using wage cuts to get out of a depression. (Punjab 1959)

Suggest some practical scheme for securing stability of prices and point out its psychological and institutional implications (Allahabad 1959)

What are the monetary and fiscal 'built-in stabilizers'? How far can they be relied upon in preventing cyclical fluctuations? (Gujarat 1958)

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Q. 26 Bring out the significant 'leads' and 'lags' in a business cycle. How are they suggestive of a causal analysis? (Poona 1960)

p. 140

Q. 27 Explain the monetary cause of booms and depressions in industrial activities. (Agra 1961)

"The trade cycle is a purely monetary phenomenon" Discuss

(Karnatak 1960)

Do you agree with the view that monetary causes do not create the trade

Q. 34. How far is it legitimate to attempt to explain relative prices by a real theory and the level of prices by monetary theory ? (Poona 1966)
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Q. 35. Keynes' 'discovery' of the consumption function must be regarded as one of the major 'breakthroughs' of modern economics. Discuss.
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Q. 36. "Keynes' policies to remove unemployment in underdeveloped countries will plunge those economies into inflationary spiral." Elucidate.
(Poona 1965)
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Q. 37. Do you agree with the view expressed in some quarters that it is not possible to maintain full employment even though we may be able to achieve it ? Give reasons for your answer.
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Q. 38. Comment on the view that Keynesian economics is concerned only with situations of depression
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Q. 39. Examine critically Schumpeter's Theory of trade cycle as a by product of economic progress. What are the implications of this theory for economic policy ?
(I.E.S. 1969 Eco-I)
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Q. 40. Show how far Keynesian theory of employment corrected the deficiencies of the classical theory and discuss also the further improvements if any made by post-Keynesian economists
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Q 1 Write a critical note on the role of money in a developing economy

Ans The underdeveloped countries of the world are making a frantic effort to bring about a rapid economic development. They have become very much conscious of the fact that they are left far behind in the race for development by the developed economies. The gulf that exists between the underdeveloped and the developed economies from the viewpoint of their average per capita income, productive capacity and the standard of living of the bulk of their peoples is the outcome of the historical forces that have been operating in the wake of the Industrial Revolution in the west and the absence of a similar revolution in the underdeveloped countries. The major cause that accounts for the supremacy of the west in all walks of life is the Industrial Revolution with all the consequences thereof. The underdeveloped countries sincerely believe that their salvation lies in bringing about in their own economies an Industrial Revolution of the western type. There is a big effort that is being made all over the world to understand the nature and causes of the phenomenon of economic backwardness and the ways and means of breaking the backbone of backwardness.

One of the most outstanding of the phenomena that issue from the process of industrialisation is monetisation of the economy. In subsistence backward economies, the emphasis is there usually on self-sufficiency, especially so in the primary sector of the economy. With the transition towards growth and the development of the industrial sector of the economy, production for exchange becomes more and more important. Money and prices assume a significant role. Gradually, barter tends to disappear. Economic activities in the pre industrial era which were carried on the terms of direct exchange of goods for goods turn into exchange against money. There is a big spurt in economic activity, accompanied by more and more of monetisation. Money becomes the most important instrument to serve as medium of exchange and measure of value. Money becomes the standard in terms of which all other exchange values are expressed. Further accumulation of wealth does not need any longer maintenance of huge godowns filled with all sorts of commodities. Command over money is enough to secure a command over every conceivable commodity which could be purchased in exchange for money. It must be realised that the various functions of money come into clear prominence only at the end of the era of barter or only after complete monetisation. The nature of production, distribution, exchange and consumption undergoes a rapid change with the advent of industrialisation and the completion of the process of monetisation. Thus, if one follows the historical sequence of events, industrialisation appears to be the cause of monetisation, a consequence of industrialisation. Without industrialisation, money would not have probably acquired the economic status which it occupies today. We can get at the point sought to be illustrated, if we compare and contrast the role of money before and after the Industrial Revolution. The underdeveloped countries of the world are in the midst of industrialisation and monetisation on the western lines and in course of time the role of money in the currently underdeveloped economies will be more or less similar to what it has been in the already developed economies.

The extremely important role that money plays in the modern industrialised economies was clearly perceived by Marx and one can see certain significant elements of monetary economics in the first volume of 'Capital'. Marx conceives of the capitalistic pro-

duction process in the form of $M-C-M'$ in which 'M' stands for the outlay of money to produce commodities 'C' and 'M'' stands for the sale value of 'C'. This is of far reaching significance in understanding the nature of the process of capitalistic production which is governed so much by the influence of money. Marx throws a good deal of light on the nature of the capitalistic mode of production and incidentally, the role of money comes to a bright focus.

More than Marx, however, it is J. M. Keynes that takes up the role of money as a casual factor in determining the volume of saving, the size of investment, the magnitude of employment, the measure of production and the size of national income. The General Theory of Employment, Interest and Money roused interest all over the capitalist world because of the sharp departure that it made from the classical school of thought which laboured under the false impression that a free economy automatically works at the level of full employment and utilises the natural resources of the nature in the best possible way, excepting for small lapses during depression periods. This contention was patently false. It ran counter to the situation which could be seen so clearly by any scientific mind. It was given to Keynes to muster the necessary courage to blow up the accepted beliefs of the day. Monetary economics as a distinct branch of the science may be said to have gained a clear recognition with the appearance of the General Theory in 1930. The main purpose of the book was to examine what determines the volume of employment—employment of labour as well as the other factors of production. It is of great significance to note that 'employment' in the General Theory refers to employment of all the factors of production and not merely to the employment of labour. It is this comprehensive use of the term employment which makes the General Theory so relevant to Development Economics which examines how communities organise the use of their natural and other resources and how to maximise the speed of resource utilisation or the rate of economic growth. This is of great relevance to those economies which for some reason or the other wish to progress within the broad framework of a free society.

It is said generally that Keynes deals with the short term economic problems of advanced capitalistic societies and he does

not show much of a concern with the long-term problems. He is concerned more with the problem of stabilising the working of capitalist economies at the level of full or nearly full level of employment of resources and not with the problem of long term growth. Much less is he concerned with the development of the underdeveloped economies since he always had in his mind the working of advanced capitalist economies. There is no doubt some truth in this contention and in so far as certain elements of the General Theory seem to be out of context with the problems of backward areas, some modifications have to be introduced to bring the reasoning in line with the facts of the underdeveloped countries. By and large, the process of working of all free economies is the same regardless of whether they are developed or underdeveloped in so far as the rules of the game are identical in terms of the freedom of occupation, consumption, saving and investment and the right to private property. In so far as the process is the same, monetary economics of the underdeveloped economies would be the same as monetary economics of the developed economies.

There is a broad agreement on all hands that the rate of growth of all economies depends on the proportion of the national income that goes into investments to form physical as well as human capital. It is the process of capital formation in this comprehensive sense that comes under the description of economic development. It is the fashion of the day to measure growth in terms of the size of investment on the one hand and the output-capital ratio on the other. In order to understand the investment process, one has to analyse the process of saving and in order to understand the process of saving one has to examine the propensity to consume and the propensity to save when the size of individual income is given. Individual incomes depend on the nature of the division of national income as determined by factor prices and commodity prices, i.e., on rent, wages, interest and profit and the prices of different commodities other than the factors of production. In other words, prices work at the root of things in determining the rate of growth of free economies—factor prices as well as commodity prices. Prices are a monetary phenomenon and it is essential to know the role of prices in promoting or retarding the growth of economies.

Entrepreneurs have to work out all their plans of develop-

ment in terms of money. The money market plays a crucial role. The demand for money for investment purposes and the supply of money in the money market react on each other rather swiftly in the process of economic development. The structure of interest rates undergoes a radical change. The governments of the countries concerned play a very important role in determining the supply of money through the agency of their central banking policy and monetary management in general. Banks, stock exchanges, underwriting houses, investment corporations and other monetary institutions play a decisive role. The working of all monetary institutions has to be geared on to satisfy the needs of a growing economy.

The whole structure of free economies is founded on the key role of money and hence arises the great importance of monetary economics. Monetary Economics in the context of growing economies is of crucial importance to understand the intricate process of economic development under the rules of a broad capitalist framework with a bit of public enterprise in some important fields. Even if public enterprise plays a decisive role, there is no getting away from the role of money.

Q 2 Define money and argue the case for and against the inclusion of time deposits in an estimate of money-stock
(Delhi 1965)

Ans It is rather difficult to define what money is though we cannot possibly conceive of any person in the world who does not handle money at all every day of his life. Money is the most common of the things that we see every day in the ordinary business of life and the best way to understand what money is is to observe the various contexts in which money makes its appearance. Even in the most primitive of communities in which consumption, production, distribution and exchange are limited to extremely low levels, some form of money or the other could be observed in the context of their economic activities. Consequently the most pertinent question that comes to the mind would be what are the contexts in which money must make its appearance and the next would be why is it that money is a must if some activities are to be carried on at all in any community? In other words, money performs certain useful functions in every modern society and it is essential to know what these functions are in order to understand

what money is. The contexts in which money appears are those contexts in which the functions of money in some capacity or the other become inevitable. That is the reason why it is said that money is what money does. What does money do ?

Money as a medium of exchange.

In all modern societies, direct exchange of goods for goods is extremely uncommon. Almost all the commodities and the services of the various factors of production are exchanged against certain quantities of money as determined by the prices. Prices are nothing but the exchange-values of commodities in terms of money. We can divide the whole society into two classes—the buyers and the sellers. The same set of people, of course, have to play these two roles. People get their income by selling some commodity in the form of some factor of production or the other and get the commodities which they need with the help of their income. Money keeps on hopping from the buyers of the factors to the sellers of the factors and back again from the sellers to the buyers when the former play the role of buyers. The economic activities of the society are thus perennially lubricated by the flow of money from the sellers to the buyers and back again from the buyers to the sellers. Thus money performs the most useful function of the medium of exchange.

Historically several things like animal skins, bones, beads, cattle, goats, grains *etc.* have played the role of money and after centuries of experimentation, it was discovered that the best medium of exchange would be the precious metals. Right up to the break of the first world war these metals dominated the scene. The supply of these metals could not keep pace with the growing needs of modern industrial societies and, therefore, the device of what goes by the name of the managed currency system came into existence and hence, today in most countries of the world, it is currency notes that play the role of legal tender or the legally recognised medium of exchange.

In the course of modern industrial evolution in the wake of the scientific revolution, money also has evolved further to higher stages of growth. The phenomenal development of modern banking has played an important role in pushing forward the development of money. The credit-instruments issued by the

bankers are media of exchange of considerable economic significance. The sources of credit supply are really sources of the supply of money and, therefore, the total supply of money today is no longer a monopoly of the state alone. The state exercises complete control over the issue of currency but the issue of credit is determined mainly by the banking system in accordance with the needs of industry and trade. The concept of money could be extended to cover all the media of exchange. Money, near money and non money etc. are concepts which could be employed to classify things in the falling order of their liquidity and acceptability as media of exchange.

Money as a measure of value

The Standard Exchange of commodities necessitates the measurement of their value to determine how much of one should be regarded as the equivalent of a given quantity of another. The measurement of exchange value is facilitated because of the use of money. The values of commodities are first expressed in terms of units of the legal tender of the country concerned and the equivalence between any two commodities can be easily established on the basis of the common unit of account namely money. There is a common unit of account so far as the jurisdiction of any particular legal tender is concerned. The logic is quite simple. Commodity A costs so much of money, commodity B costs so much, therefore so much of A should exchange for so much of B. So far as internationally exchanged commodities are concerned there is a double procedure to be followed since the units of measurement are not the same. Commodity values are first expressed in the currency of the countries and then, the exchange ratio between the currencies themselves is used to determine how much of one commodity is to be exchanged for a given quantity of another. Money as a measure of value plays an important role as a standard unit of accounting. In this connection the trouble often met with is the instability of the value of the standard unit. It is as though the length of the foot is something at one time and something else at another. All the same, money is the only standard unit for the measurement of the value of commodities.

The standard unit for the measurement of value has to be fixed by law and it has to be enforced strictly by the Government.

and this function is undertaken by the governments since the government has the sole monopoly over the issue of legal tender.

Money as a store of value.

In the absence of money, value could be stored only in terms of several commodities which could be accumulated in the godowns but there would be great limitations to such a process of storage of value. Today money is to be stored to store value. It is often thought that money has been greatly responsible for the concentration of wealth in the modern industrial societies. There is a good deal of truth in this reasoning. The capitalist classes have come into existence mainly on this account. Command over a store of money is the central source of their strength in the industrial world. Storing value has become easy for those that have learnt the art of making money.

Time deposits and money.

Time deposits are those deposits which remain fixed with the banks for certain periods of time and, therefore, apparently, it creates the impression that a certain sum of money is held as a stock by the bankers and the depositors. The depositors cannot withdraw the money before the expiry of that period. They can, of course, take a loan against the security of the deposits and thus the illiquid assets—from the view-point of the depositors—assume liquidity. The stock starts flowing. The bankers themselves are free to invest the time-deposits on a long-term basis since there is an agreement with the depositors that they cannot claim their money back before a certain period of time. Whether or not time-deposits are to be included as a part of the money-stock of the country depends on the concept of the stock that is used. The concept of a stock is used often as the opposite of the flow and in this sense, it would be wrong to regard time-deposits as a stock, time-deposits are not idle money. They also are active and their activity depends on their use.

POINTS TO REMEMBER

1. It is difficult to define money, though money is met with at every step in the ordinary business of life.
2. Money is best defined as 'money is what money does'. What does money do?
3. Money performs four important functions in all modern industrial societies.

4. The universal medium of exchange within the jurisdiction of a given legal tender is the money of the country concerned
 5. Money is a measure of value and the standard unit of accounting. Prices are nothing but commodity-values expressed in terms of so much of money.
 6. Money is an important store of value. Concentration of wealth is partly due to the role of money.
 7. Time-deposits are not stocks--if stocks mean idle money. Time-deposits can be quite active.
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Q 3 What, according to you, are the essential characteristics of money? Illustrate your answer with reference to those assets which share some but not all the essential attributes of money. Is "black money" or "unaccounted money" money in your sense of the word, and why?

(Delhi 1964)

Ans Whatever does the job of money could be called money. In this sense, it is said popularly that money is what money does. So, the question that arises is "What is the job of money?" or "what are the functions of money?" The essential characteristics or attributes of money are those attributes without which it is impossible to use the things concerned to serve the functions of money. We can, therefore, take the essential characteristics of money to mean the essential functions which money performs in any economy. We can take characteristics or attributes or functions to mean the same, so far as money is concerned since money is always understood in terms of what money does.

The most essential function of money is to provide a convenient medium of exchange that is universally accepted all over the economy within the boundaries of a country, for the settlement of all sorts of debt obligations. In all modern economies it is the legal tender or currency of the country that is issued by the state which is the legally recognised medium of exchange. Money in the purely legalistic sense of the term refers only to legal tender since no person can refuse to accept the legal tender of a country towards the settlement of any debt which he is to receive from others. To restrict the concept of money to legal tender alone would take away most of other things which are nearly money outside the definition of money. The legal definition of money would be extremely narrow.

If, in practice, people do accept "non-legal tender" monetary instruments to act as a medium of exchange, the other instruments also share to some extent at least a basic attribute of money. For instance, if gold and silver are freely used as a medium of exchange on the basis of general acceptance, though there is no legal obligation to accept gold and silver for payment, these commodities do serve the function of money as a medium of exchange. If we go into the history of the various media of exchange at different stages of economic evolution, we would be struck by the variety of things which have been used at different times as a medium of exchange. Grains, skins, hides, bones, horns, beads, goats, cows and what not have served as a medium of exchange. The difficulties of using these things as a suitable medium of exchange must have led to their rejection to experiment with something better. Eventually people start using the precious metals as a convenient medium of exchange. The precious metals hold the ground for quite a long period of time, till their active use is replaced by the evolution of paper currency. Even today precious metals, particularly gold, continue to play an important passive role as a support for legal tender. The importance of these metals wears off with the coming into existence of paper currency under the managed currency system. All the same, the function of a medium of exchange is not restricted to legal tender alone. Cheques, bills of exchange, promissory notes, stocks and shares and other assets which could be mortgaged, could be used as a medium of exchange. The differences between money proper and near-money originate from the differences in liquidity on the one hand and legal obligation to accept on the other. Legal tender is perfectly liquid and it has to be accepted under law whereas other forms of money are not so liquid and one can refuse to accept them if one so chooses. The readiness with which they are accepted as a medium of exchange brings them nearer to money and *vice versa*. All assets could be used as money in different degrees and it is possible to arrange different assets in the order of their nearness to money, with legal tender at the top.

The next function of money is that of a measure of value. In a monetised economy the exchange value of every commodity is expressed in terms of units of legal tender. To provide a measure of value is an essential attribute of money. This measure of value is universally recognised and accepted so far as legal tender is

concerned. All transactions could be settled in terms of money for purposes of exchange. This is particularly so in industrialised societies in which there is almost complete monetisation and hence, everything that comes to the market for sale is valued in terms of money. In the backward economies, however, the measure of value need not always be money for the value of quite a few commodities like the services of domestic servants or agricultural labourers is measured partly in money and partly in food, clothing and other facilities extended to them by the buyers of their services. Some of the farm workers may be paid in so much grain per week or per year as the case may be. In that case, grain becomes the measure of value. Whatever, in fact, acts as a medium of exchange also acts as a measure of value. Any efficient measure of value should be easily multiplicable, divisible, portable and should as far as possible remain a stable unit. If liquids are measured in litres, the litre should remain a stable unit and if length is measured in metres, the metre should remain a stable unit. If the measure that is taken as the standard to measure other values is subject to alterations from time to time, there would be a lot of confusion. In the case of money, however, there is no such guarantee.

This brings us to the next function of money namely money as a standard of value. By standard we mean the standard measure of value. Normally, money is the standard measure of value excepting during periods of hyper inflation when people refuse to take money as the standard measure of value because of the big fall in the value of money. Unfortunately money is a rather imperfect standard of value in so far as the value of money varies inversely with the general level of prices. Money is a changing standard of value—changing inversely with the prices. Thus, money as a unit of account does not always remain faithful, but there does not seem to be any escape from this miserable plight. It is rather difficult to think of a perfectly stable standard of value. In no country in the world, such a perfectly stable standard seems to have come into existence. In advanced economies, it is the legal tender that is the standard of value but in primitive economies other commodities like grain may serve as a standard of value.

The last attribute of money is that money is a store of value. Command over money gives a ready command over goods and services. In the absence of money, accumulation of wealth has to

be done in the form of accumulation of real assets and not in the form of command over purchasing power. Purchasing power has to be accumulated in the form of those goods and services that can act as a medium of exchange, a measure of value, a unit of account and a standard of value. With the coming into existence of money, there is a new form of accumulation and that is accumulation in the form of money. Thus, money serves as a store of value.

These four attributes of money as a medium, a measure, a standard and a store are shared by almost all assets in different degrees. If money also be included as a part of the assets that a man possesses, the only distinction between money and non-money would be that legal tender would be perfect money whereas other assets would be not so perfect in so far as they have to be converted into legal tender for the settlement of transactions in some cases and in so far as they do not readily serve as a medium of exchange, a measure of value and a standard of value. The distinction between money and non-money would be only a matter of degree and not of kind and hence arise the difficulties of determining the exact quantity of money in circulation. The very first difficulty that arises is what to include and what not to include within the concept of money. It is rather difficult to give a clear-cut definition, excepting by way of the functions performed by money.

The next issue is whether or not black money or unaccounted money is money in our sense of the word. The very fact that there are some doubts about the proposition shows that there is some distinction between black money or unaccounted money hoarded by profiteering black-marketeers or held by them in the lockers of the banks. The main distinction between open, legally acquired money and black money is this, that the former can be used by the owner for any lawful purpose without any let or hindrance whereas the latter cannot be so used. For instance, people who have made huge fortunes in the black market cannot hope to undertake large scale investment unless they give the business a sort of legal colouring. They are forced to hoard their money either in the form of cash or in the form of gold and jewellery which could be easily concealed somewhere. Black money, as far as is partly responsible for the great demand for gold and jewellery which are easily concealable assets. Does this, however, amount to saying that black money is no money at all ?

That the owners of black money are not free to use their money freely does reduce black money to a lesser economic status but it does not extinguish totally the purchasing power which they command. Black money does not carry any stamp on it regarding the source of earning of the person that earns in the black market. Any person with money regardless of the source of his earning is free to enjoy goods and services which he desires to consume. Black money usually stimulates greater consumption rather than greater investment because it is possible to get away with consumption more easily than with investment. In the case of investment some explanation has to be given regarding the sources whereas in the case of consumption no such explanation need be given at every step. Black money can remain a great store of value a standard of value as also a measure of value. By and large black money continues to possess all the essential attributes of money though its value as a medium of exchange for investment purposes is reduced to some extent because of the fear of exposure and the legal consequences thereof. Black money is money in our sense of the word because of the fact that black money possesses most of the essential attributes of money though some restrictions are there on its use.

POINTS TO REMEMBER

1. Attributes characteristics and functions may be taken to be same so far as money is concerned since money is what money does.
2. Money generally performs four well known functions. Money is a medium a measure a standard and a store.
3. The use of the term money is popularly restricted to cover legal tender alone but this unnecessarily narrows the denotation.
4. Any asset that broadly possesses the essential attributes of money could be called money in the functional sense of the term.
5. In this sense cheques bills of exchange promissory notes gold and silver and other assets or any form of a security that makes possible exchange could be called near money though not perfect money.
6. The distinction between money and non money is only a matter of degree and not of kind.
7. Black money is money for all essential purposes though it cannot be openly used for purposes of investment for fear of exposure.

SELECT READINGS

1. Widdows Hartley *Meaning of Money*
2. Cannan Edwin *Modern Currency and the regulation of its value*
3. Cole G D H *What everybody wants to know about money*
4. Curtis M and Townsend H *Modern Money*

Q. 4. "The starting point of modern monetary theory is that money is inherently unstable." Elucidate this statement and contrast it with the classical analysis

(Venkateswara 1960)

Ans. What goes by the name of modern monetary theory could be traced to its origin in the *General Theory* of Keynes which appeared in the year 1936. The essence of modern monetary theory is the central role of money in a capitalist economy as a guide to production, controller of consumption, sign-post for the direction and volume of exchange and the key-lever affecting decisively the rate of saving and investment in the process of income-generation. In a capitalist economy, money plays the active role of determining the volume as well as the direction of production, on the one hand, and the remuneration to the various factors of production, on the other, which has a profound influence on the nature of aggregate effective demand which in turn determines the smoothness or otherwise of the productive functions being carried on under the guidance of money-making possibilities. Expectations regarding money making possibilities play a vital role in ensuring stability or casting a spell of instability in the operations of the capitalistic mechanism and hence, it is of paramount importance to analyse the role of money in a highly monetised capitalist economy.

The school of thought built up by Ricardo, James Mill and their followers has been christened by Marx "the classical economic theorists". Keynes includes in the group of classical writers Marshall, Edgeworth and Prof. Pigou as well, since these economists accept in substance most of the postulates of the classical theorists. The classical economists never faced squarely the question of chronic instability of the capitalistic system. The postulates constituting the basis of their economic analysis happened to be convenient and comfortable enough to evade the real issues that were taken up later by the Keynesian school of thought as a challenge to the erroneous but universally accepted views, based on classical economic analysis. The entire analysis of the classical theorists is based on the following assumptions as pointed out by Keynes in his *General Theory* (vide p. 21, vii) :—

1. that the real wage is equal to the marginal disutility of the existing employment;

- 2 that there is no such thing as involuntary unemployment in the strict sense, and
- 3 that supply creates its own demand in the sense that the aggregate demand price is equal to the aggregate supply price for all levels of output and employment "

These smug assumptions are really responsible for the inattention to the hard facts of a capitalist economy. These postulates have been completely blown up by modern theorists, the challenge being initially taken up by Lord Keynes in his *General Theory on Employment, Interest and Money*.

The classical theory puts the blame for the prevalence of unemployment squarely at the doors of labour, contending as it does, that it is the non acceptance by some of the workers of the ruling wages that is responsible for unemployment. A reduction in the real wages of labour would automatically ensure full employment! Therefore, whatever unemployment prevails must be of the voluntary type! It is indeed most amazing that such bold statements should have been made in the face of large scale involuntary unemployment even with the preparedness of the workers to offer their services at ridiculously low prices. To suppose that full employment is stable and automatic excepting for some lapses for brief periods may have been all right in the early stages of the Industrial Revolution which brought about an ever expanding progress in both employment and production. There was, however, no justification for the postulate that the same condition would continue for all times to come.

Say's law that supply creates its own demand is also not warranted by the facts of a modern capitalist economy. The discrepancy between demand and supply is so chronic that it is hardly possible to swallow the validity of Say's Law. The presumption of stability is no solution for the prevailing state of instability. The starting point of modern monetary theory is that money is inherently unstable. What is common is instability and not stability. The Keynesian analysis contends that the instability of a modern capitalist economy arises primarily because of the role played by money.

In a capitalist economy, money is the pivot around which all economic activities cluster. Production is organised primarily for

the purpose of making a profit. The entrepreneurs have to buy the services of the factors of production in order to cater for a future demand. The factors of production have to be paid for in terms of money. The supply of the factors of production depends mainly on the monetary reward which they hope to command for a given unit of time. It has been clearly pointed out by Keynes that the workers are extremely sensitive to reduction in their money-wages. Should, however, a reduction in wages be brought by a rise in prices, they would not react with the same truculence. Similarly, the entrepreneurs are certainly much bothered about the monetary reward which they would be able to squeeze out of the market. Their principal goal is to buy the services of the factors of production at a lower price and sell the product at a higher price. The mobility of capital and land (as between different uses) would obviously be governed by the expectation of a better reward. The pursuit of money exhausts the entire set of economic activities in a capitalist society. Therefore, money is the pivot around which all economic activities cluster in a capitalist economy.

A capitalist economy tends to be inherently unstable because of the role played by money through the medium of prices. Given a certain supply of goods and services, an increase in the quantity of money either through the increase in the total sum of currency or through an increase in the velocity of circulation of money or through the expansion of bank credit tends to push up the prices. A rise in prices creates in the minds of the entrepreneurial classes hopes of reaping a rich harvest of profits. The entire economy gets ahead booming with increasing employment, income and output. The acquisition and accumulation of money during the early stages of a boom seems to intoxicate the entrepreneurial classes into intense activity which leads to such a great over supply of commodities that there is a glut of unsold stocks in the market. This results in a 'crash'. The prices fall, profits dwindle, workers are disbanded, unemployment increases, incomes fall, demand slackens, and prices are pulled down still further resulting in mounting miseries to every section of the society. All this happens because of falling prices which is nothing but a monetary phenomenon.

The Keynesian analysis of the instability of the capitalistic order assigns a big weightage to the role of money and prescribes, therefore, appropriate monetary and fiscal measures to counteract

the ups and downs of business. The open market operations of the Central Bank, e.g., the sale and purchase of securities, the bank rate policy and the reserve ratio policy, the taxation policy of the State, the scheme of public works, etc., are all to be so designed as to create suitable monetary conditions for the stability and progress of the economy. The measures Keynes suggested do not purport to deal any blow to the democratic framework of the society. It only implies a certain amount of State intervention with a view to inject or withdraw money according to the needs of the economy and the adoption of appropriate contra cyclical measures.

In a socialist economy, money is assigned merely the role of a servant and not that of a master. In fact, the USSR experimented for a brief period of time with a moneyless economy but the need for the proper functions of money, as a medium, a measure, a standard and a store, was so great that they had to resort to money again. All the same money in a socialist economy is not at all allowed to act as a guide to production. The production programme of a socialist economy is governed by the predilections and judgment of the Central Planning Board and money has nothing to do with the drawing up of a plan. Planning is basically physical in character in the sense that an actual survey of resources is conducted and on the basis of the availability of the factors of production and needs of the economy as seen by the planners, an allocation of resources is made to various sectors of the economy. In a socialist economy, things are not left to the erratic fluctuations of the monetary demand that play a great havoc in a capitalist economy. Because of the absence or abolition of private business in a socialist economy distribution does not depend on a scramble for exploitation. Money is, of course, used as a medium of distribution but the pattern of distribution does not affect the size and composition of production to the extent it does in a capitalist economy. Superfluities and wastages from the social angle are reduced to the minimum. In other words, in a socialist economy, money is completely under the control of the State and as such money does not exercise any control of its own. To sum up, in a capitalist economy, money is the master and in a socialist economy it is the servant.

POINTS TO REMEMBER

1. The classical theorists never faced the real problems of a capitalist

society squarely. They assumed away the existence of the problem itself.

2. On the basis of Say's Law, it was presumed that full employment is normal excepting for brief lapses due to frictional causes.
3. Every economic activity in a capitalist economy clusters around the pivot of money.
4. The Keynesian analysis of the role of money in a capitalist society differs sharply from that of the classicists.
5. Money in a socialist economy does not play a decisive role to the same extent as it does in a capitalist economy.
6. In a capitalist economy money is the master whereas in a socialist economy it is a servant.

SELECT READINGS

1. Keynes : *General Theory*
2. Halm : *Money*.
3. Crowther : *Outlines of Money*.
4. Cole, G.D.H. : *Money, Its Present and Future*.

Q. 5. "Money has evolved through time simply by the creation of more substitutes of itself" Discuss.

(Delhi 1963)

Ans. The evolution of money through times is shrouded in obscurity. Whatever knowledge there exists about the course of evolution of money as a medium of exchange, a unit of account and a store of value is more a matter of intelligent imagination than a question of reliable and authentic historical records. In point of fact, there is little of evidence in support of a particular historical sequence of events which brings the course of evolution to the present managed currency system with all its implications in terms of the authority and powers of the Central Bank over the currency and credit mechanisms of the financial structure of a given economy which is nothing but the reflection that mirrors the complexity of real economic activities. It must, however, be remembered for purposes of intelligent imagination that the course of evolution of money is inseparably linked up with the course of evolution of the modern economic systems. Money seems to have evolved in response to the urgent and inevitable needs of the various stages of growth of the economic system till we come to the modern age and therefore, in order to appreciate the stages of evolution in the course of monetary development, we have to uncover the stages in the course of

development of the economies. There is a close intertwining between the two. Evolution of money and evolution of economic activities in terms of production and exchange seem to run a concomitant course. Broadly speaking we may divide the course of evolution into five stages: (a) pre monetary stage of barter, (b) predecessors of metallic money, (c) metallic coins, (d) convertible paper money, and (e) inconvertible currency and credit instruments. It would be apparent as we trace the course of evolution of money that money has evolved through time simply by the creation of more substitutes of itself.

In the pre monetary stage of barter when goods were directly exchanged for goods, there must have been a lot of inconvenience. It must have been rather difficult to settle the terms of exchange. Difficulties about the possibility of coming across a double coincidence of wants, a commonly acceptable medium of exchange, the absurdity of settling fractional values in terms of indivisible units of account and the fantastic troubles originating from the inconvenience of storage and transportation of commodities to get them exchanged for other commodities etc., must have been extremely irksome. So long as the primitive peoples had little to do with exchange because of their economic self sufficiency or because of their faith in forceful seizure of what they needed rather than acquisition by way of exchange, the question of the inconveniences originating from the absence of money did not arise. Peaceful and voluntary exchange of commodities is likely to have come up at a comparatively higher stage of human civilisation when the exercise of might to dispossess others of what they had was no longer a socially accepted mode of ethical behaviour. Might, as a medium to dispossess others of what they had, had to be replaced by voluntary and peaceful agreement to exchange on a basis of give and take and with the evolution of barter, the need for money is likely to have become rather acute because of the obvious inconveniences of a direct exchange of commodities for commodities.

Tribal communities evolving to the stage of barter from primitive self sufficiency felt the need of money and in course of time, a certain article commonly valued by all assumed the role of money. This is the pre metallic stage in the course of evolution of money. Horns, bones, hides, corn, goats, cattle etc., have been used in different communities to play the role of money and it is

not at all difficult to imagine the difficulties implicit in the use of these commodities to serve as a medium of exchange. When goats play the role of money, the supply of money increases during the breeding season and decreases when there is a shortage of fodder or when the flocks dwindle in number because of some diseases. When the goats stray away, so much of money walks out of the pocket of the owner. In order to purchase small articles the goat would have to be cut up and exchanged in bits. The storage of money in the form of goats requires quite a lot of space and its preservation through time is a costly business. The amount of business which could possibly be done with a living and indivisible medium must necessarily have been subject to very serious limitations. In the absence, however, of a better alternative, such a state of affairs must have continued for quite some time. The urge to get over the difficulties and inconveniences continued unabated and man encountered these obstacles to the evolution of money with a keener imagination than before.

The discovery of metals like copper, bronze and iron presented before the parties interested in exchange the need to invent a new unit of account and medium of exchange much better than the ones which prevailed before. The dawn of the metallic age brings us to the next stage in the course of evolution of money. Uncorred metals were used as media of exchange to settle the terms of exchange. Where some of the old difficulties were got over, next ones appeared in their place. The supply of metals was subject to serious fluctuations because of the discovery of new mines or the exhaustion of the ones existing earlier. Sometimes there was too much of a metal which made the currency cheap and sometimes there was too little which made money hard to come by. Storage and transportation were by no means easy and to cut up hard metal into extremely tiny bits was rather difficult.

From the rough and crude metals to the precious metals is the next phase of transition towards higher stage of growth. The precious metals have some intrinsic value besides the value in terms of exchange and hence they command universal respect. The difficulties, however, do not cease with the adoption of the precious metals as the unit of account and the medium of exchange. The precious metals are too precious and acute scarcity of money is rather irksome. Their transportation from place to place is

comparatively easy but storage is not safe, subject as it is to possible theft or burglary. Transportation is subject to the same danger. Therefore, the merchants who have played such an important role in forging the evolution of money, devised new ways and means of providing evidence of their command over money to pay to the sellers of commodities.

Instead of carrying precious metals from place to place, the traders deposited their stocks of precious metals with certain parties of good repute and obtained in writing a certificate that a certain man does possess with him a given quantity of money. Such certificates were carried to distant places for purposes of business. The other party, of course must necessarily know the person who issues a certificate to the effect that the necessary stocks of precious metals are, in point of fact deposited with him and that whenever that certificate is presented by the depositor, the precious metals would be duly released. This piece of paper became a sort of convenient credit instrument to be carried from place to place to pay the dues.

In course of time the persons specialising in the business of receiving deposits from the merchants and issuing to them small pieces of I O U's discovered that the notes issued by them were not presented for 'encashment' by quite many of the depositors. The confidence in the integrity of the person who issued the note was sufficient to finance transactions. That is how the modern banker came into existence with his strange powers of issuing notes far in excess of the actual value of deposits. The banker knows by experience that only a small proportion of the cheques issued by him would be presented to him for actual payment and therefore he acquires the powers of credit creation. Credit becomes an excellent and most effective substitute for money. In the early stages people did insist on fully convertible paper currency but in course of time they realised that it was quite unnecessary to insist on convertibility. The inscription on every note that the Central Bank owes so much of money to the holder of a currency note is only a historical relic of the days of full convertibility. Today money has evolved to the stage of a completely managed currency. The Central Bank of a country exercises a monopolist's authority over the issue of currency and how much

of money is to be issued is decided on the basis of the monetary requirement of the economy. Coins still exist only for petty transactions. Money, it is apparent, has evolved through time by creating more and more refined money-substitutes and today currency and credit have come to the stage of the completely managed system.

POINTS TO REMEMBER

1. The evolution of money through time is shrouded in obscurity.
2. Whatever knowledge there is about the course of evolution of money is a matter of guess and imagination.
3. Self-sufficiency broke with the rise of barter and the need for money originated in the irksome difficulties of barter.
4. All sorts of things like horns, bones, hides, corn, goats and cattle have played the role of money and a new substitute was invariably a refinement over the old.
5. The discovery of metals opened up fresh possibilities and precious metals occupied the pride of place.
6. Merchants found it inconvenient to carry metals from place to place and hence they carried deposit-certificates from certain men of repute. This was the first form of credit instrument.
7. The next stage in the course of evolution of money is inconvertible paper currency under a managed system under the control of the Central Bank.

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2. Pigou, A.C. : *The Veil of Money*.
3. Rao, V.K.R.V. : Investment, Income and the Multiplier in an Under-developed Economy, *Indian Economic Review*, 1952.

Q. 6. What is the social significance of money? Is money all powerful in a capitalist economy? Explain clearly.
(Agra 1960)

What is the social significance of money? Do you advocate redistribution of incomes in a community? If so, suggest methods.
(Agra 1957)

Aus. The social significance of money in a capitalist society originates from the decisive influence which money exercises on the volume of production, and the pattern of distribution both of which hold a profound significance in promoting the cause of

human welfare In a society in which production is organised primarily for exchange in terms of money, there is an imperative need for a suitable medium of exchange in order to overcome the difficulties of barter The value of every commodity to be exchanged is measured in terms of the standard value represented by the unit of accounting as embodied in the legal currency of the country It not only facilitates exchanges by providing a suitable medium, but also enables certain individuals to amass enormous fortunes just by piling up currency notes instead of maintaining big godowns filled with rich conglomeration of a diversity of commodities which would have been the case, had there been no money at all Apart from the traditional four fold functions of money—a medium a measure, a standard and a store, each of which has a social significance of its own, the most important function of money from the social angle emerges from the influence and role of money in the determination of the total volume of output and the pattern of distribution of the capitalist order of society

In a completely monetised exchange economy, the division of the net national product among the members of the community takes place on the basis of the apportionment of purchasing power Those who receive a larger quantity of purchasing power can command a greater share of the national income than what could be claimed by persons with a lesser amount of money The rewards to the four factors of production that collaborate in the process of creation of wealth and income are determined in the form of sums of money to be allocated to them for their respective services Rent, interest, wages and profits are determined in terms of sums of money earned per unit of time The only exception to this rule would be those producers who consume a good proportion of their own produce, e.g., a farmer In general, in any advanced economy, the division of the net national product among the members of the society must take place on the basis of the division of purchasing power The social significance of money in a monetised economy obviously emerges from the fact that one's share in a national income depends on one's command over money

In competitive acquisitive type of societies one can easily appreciate the infinite struggle for the acquisition and accumulation of money in view of the enormously formidable power which money vests in its master to command everything that is subject to

exchange in terms of money and there are, indeed, really very few rare things that are not subject to exchange for money. The mobility of the factors of production into various directions is normally conditioned by the prospects of higher earnings. The entire productive mechanism of a capitalist society is organised with the hope of reaping a rich monetary reward, and as such the pursuit of money becomes almost the be-all and end-all of all economic activities. Money, the servant, becomes money, the master. Money is actively divested of its neutral role and, in fact, the progress and prosperity of a capitalist society hinges largely on the role played by money.

The size and composition of the net national product is largely determined by the pattern of distribution of the monetary income. Production in a capitalist society is organised for profits in anticipation of a future demand. The aggregate demand of the entire community as well as the demand of particular sections for particular products would be governed by the pattern of distribution of purchasing power. In a society in which there are great inequalities in the distribution of purchasing power, there are two significant probable consequences. If the wealthy minority happens to be endowed with a great propensity to save, there is likely to be a deficiency in aggregate demand, in case the propensity to save is not matched by a corresponding propensity to invest. However, should the rich happen to be endowed with a strong propensity to consume, the demand for comforts and luxuries is all likely to be disproportionately greater than the demand for necessities. The vast majority cannot translate their barest of necessities into demand due to their inadequate command over purchasing power. In the case of the former, a deficiency of aggregate demand would lead to a fall in the total volume of production and the economy would be exposed to the chronic threat of a depression round the corner due to the unstable nature of the demand for goods and services, depending on the whims and fancies of the rich. In the latter case in which the wealthy are endowed with a strong propensity to consume, there would be a distortion of demand in the sense that the resources of the society would be directed to the production of the superfluities of the rich at the cost of the barest necessities of the poor.

In order to stimulate a rise in aggregate demand and rectify

the distortion of demand too heavily tilted in favour of comforts and luxuries at the cost of necessities it is imperative to reduce the inequalities in the distribution of wealth and incomes. A reduction of inequalities is likely to be productive of a much greater economic and social welfare than what we have in a community in which a small minority wallows in wealth and the vast majority lives eternally on the verge of destitution. There is a strong case for reduction of inequalities. Economic oligarchy is hardly compatible with political democracy. In spite of the theoretical objections to the inter personal comparison of utility and the law of diminishing marginal utility as applied to income it is contended by Pigou that there is strong and convincing case for the reduction of inequalities.

Inequalities arise mainly out of two sources (a) differences in the inborn and acquired abilities of individuals and (b) differences in the ownership of property. The latter is far more important than the former.

Differences in ability could be considerably reduced by the dissemination of facilities for education. The denial of opportunities for training renders the children born in poor families in a state of disability. Those born in well to do families start off with all the advantages of a good material heritage. Secondly differences arising out of property could be reduced to a significant extent by a progressive scheme of taxation, subsidies and grants. A gradual reduction in inequalities could be thought of by adopting a scheme like the one advocated by the Italian economist Rignano. The adoption of the welfare ideal by the State also goes a long way in reducing inequalities. The communists would advocate a complete abolition of private property in order to reduce inequalities. They would like to practise a principle like from each according to his ability to each according to his needs.

POINTS TO REMEMBER

1. The social significance of money in a capitalist society originates from the influence of money on production and distribution of wealth and income.
2. In a completely monetised economy the division of the net national product among the members of the community takes place on the basis of the division of the monetary income.

3. In a capitalist economy, the pursuit of money is the major occupation of the majority of the people.
4. There is a regular relationship between the pattern of distribution of money and the size and composition of production.
5. Great inequalities bring about a general deficiency as well as a distortion of demand.
6. We can reduce inequalities within the democratic framework by the adoption of suitable fiscal and monetary measures.

SELECT READINGS

1. Meade : *Economic Analysis & Policy*.
2. Bye and Hewett : *Applied Economics*.
3. Dalton : *Public Finance*.

Q. 7. "The importance of money essentially flows from its being a link between the present and the future."
(Keynes) Comment. (Poona 1960)

"Money itself creates nothing, it is a means to an end, it is a lubricant of....." Discuss. (Agra 1958)

"Money is quite indispensable for the functioning of market economy....." Discuss. (Allahabad 1957)

"Money is the pivot round which the economic science

" Discuss and point out the significance of money in socialist economy.

Ans. After centuries of gradual evolution, there emerges an economic system based on exchange in terms of money with the slow decay and disappearance of barter which, in the course of the flow of history brought into existence crude forms of money. It is primarily because of the difficulties inherent in the system of barter that there arose the need for a smooth medium of exchange and unit of account so that commercial transactions could be carried on without the obstructions felt under barter. The appearance of money as a medium of exchange and store of value has revolutionised the world of commerce and paved the way for large scale capitalistic mode of production with the help of scientific inventions. The invention of money to play the role of medium of exchange and store of value, and to provide a convenient unit of account is, as a matter of fact, nothing short of a revolution. Under the new system of production, distribution and

exchange all economic units work on the basis of money profits, money costs and money prices

Demand pattern reflects itself in production pattern, which in turn, determines the structure of demand pattern for factors of production which in its turn, influences the demand for finished commodities. Thus money, on the one hand, provides us with a price mechanism which is an essential regulator of all economic activities in the absence of central planning, and on the other, it helps in smoother working of the economy by removing obstructions of barter

Had money confined itself to the function of medium of exchange only, people would not have wished for better. But in reality its being a medium of exchange implies the possession of value¹ and when value is to be stored, it may as well, or rather preferably, be stored in the form of an asset which is the medium of exchange rather than in the form of one which is not. Older writers were in the habit of viewing money as a medium of exchange or at least considering store value function of money as of sufficiently little significance. Money had its own value which was determined by demand and supply and we find two main versions of the quantity theory of money emphasising either one or the other of the two. The Cambridge version of the quantity theory emphasised the demand side of money and though the fact that money was not so simple and obedient a servant dawned gradually upon the intellectuals, the fact was recognised rather slowly. As Prof Pigou put it, the economists were in the habit of considering money as "a veil behind which the action of real economic forces is concealed". Accordingly, we find text books on economic theory dealing with real economic analysis considering some special problems of money only at the end or not at all. They fail to recognise that one of the main forces providing dynamism to the economy is found in the existence of money itself. It is money which provides a link between the present and the future by acting as a store of value

1 A person will not accept anything in exchange unless he is sure that in turn he will be able to exchange it for something which is of value to him. Technically, therefore, he is storing value for a stipulated period and this period may be prolonged or shortened by him

But alas ! This store of value is not a dependable thing. There is an element of risk that this store may get depleted or replenished unpredictably and at unwanted times. Transaction type approach to quantity theory was ignoring the possibility of our store of value differing from our calculations before we turn it over to somebody else. But the problem is there and has to be faced.

To straighten out the tangle we consider a simple situation in which people are using money both for transaction purposes as well as for storing wealth. In the market the value of money is to be determined by the current supply of goods and services *vis à vis* the current flow of money. Therefore, if today people decide to save more in terms of money, the value of money rise in terms of other commodities and if they decide to save less or if they bring into the market money saved in the past, its value is bound to fall. Now precisely here the difficulty arises. All calculations have to be made in terms of money yields and money costs, money is thus acting as a link or bridge between the present and future. But this link is quite a weak link entailing all sorts of grave dangers. No one can predict with certainty whether at a certain time in the future, the supply of money will be relatively more or less as compared with the supply of goods and services. But everyone has to make a guess as best as he can and act accordingly. Exceptions have to be there and activities are based upon them. Keynes has been emphasising the role of expectations in his writings. Marginal efficiency of capital which is a major force in the determination of investment and hence income of the community, is nothing but the expected yield on investments. Further, there are technical reasons due to which there is a time lag between plans of investment and its fructification. Investments have to be made on the basis of future expected yields and contracts have to be entered into with various factors of production regarding the payments for their services in money terms. But there is no contract or guarantee regarding the price which the finally produced commodity will fetch and, therefore, however bright the future may seem to be, it is always uncertain, and this uncertainty increases with the length of the gestation period of investment.

Clearly as price expectations (the inverse of which is expectations of value of money) guide the economic activities, a disaster is

spelled whenever they prove false, which in turn may induce the investors to have very low faith in the future and hence to curtail their investment plans. In an unplanned and uncontrolled economy, where money rules through the formation of prices such events are quite commonly experienced in the form of ups and downs of trade cycles. Keynes was right in saying "Unemployment, the precarious life of the worker, the disappointment of expectation, the sudden loss of savings, the excessive windfalls to individuals, the speculator, the profiteer—all proceed, in large measure, from the instability of the standard of value"¹

The instability of the value of money, or prices, is the main reason of wastage of our economic resources. There are periods of inactivity and periods of overworking of our capital and labour resources. Against possible future demand there may be over-capitalisation in businesses, and if there is not, then, an abnormally high demand which is likely to be there, time and on, cannot be met with. Against the risk of losing customers when demand is there, there also lies the risk of investing for a period when demand will not be there. "It is often supposed that the costs of production are three fold, corresponding to the rewards of labour, enterprise, and accumulation. But there is a fourth cost, viz, risk, and the reward of risk-bearing is one of the heaviest, and perhaps the most avoidable burden on production. This element of risk is aggravated by the instability of the standard of value"²

It is not only these economic disadvantages in the form of trade cycles, loss of production and unnecessary payment of rentier incomes to profiteers and speculators which flow from the changing value of money, but grave social dangers also. Money may be used to bring about greater social justice and well being through taxation, budgeting for social welfare and adopting fiscal and monetary measures for economic development. In the USSR we have an extreme example of the wiping out of the moneyed class through depreciation of roubles after the Bolshevik Revolution. But in a free market economy, social injustice flowing both from rising and falling prices is too well known to be narrated in any detail. Evils of inflation and deflation as reflected in the relative distribution of wealth and income need no recounting. But even from the pure economic

1. Keynes, *Treatise on Monetary Reform*, p v.

2. *Ibid*, pp. v-vi.

viewpoint, fluctuations in the value of money are equally dangerous. "For the moment it is enough to note that the redistribution of real wealth effected by changes in the value of money has a secondary effect on the total of real wealth produced, by reason of its influence on the decisions of businessmen."¹ Not that we shall get rid of all evils by simply eliminating money. Use of money has to be there in one form or other in every society which can claim any economic advancement; and so long as there are some assets which have liquidity and which have value, there will always be the existence of money (even if it is in a crude form). "At all times, in any society, money will be needed for any complex economic society."² And to the extent this money exists, there will be expectations, uncertainty and attendant dangers. We can only have rigid controls by which the evil effects of money may be minimised but so long as it is given freedom, it will always be dangerous. We must use money to lubricate the wheels of our economy, but at the same time we must be prepared to accept the accidents which are bound to take place

POINTS TO REMEMBER

1. Money is to be considered in terms of its essential features, as a medium of exchange it helps in the smooth working of an economy; as a store of value it often obstructs this smooth working and sets upon the expectation of economic units.
2. It acts as a link between the present and the future.
3. Money, as store of value, is dangerous because prices may change unexpectedly. An economy can have trade cycles only if it has money acting as a store of value.
4. Money spells this disaster (and social injustice also) because all economic calculations are made in money terms, there are 'contracts' and gestation periods of investment; and hence there arises the possibility of profiteering and speculation.
5. Changes in the value of money carry social evils with them.
6. We cannot eliminate the use of money. We can only minimise its evils by curtailing certain of its functions and by adopting a central regulation of the economy.

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2. Honoe Croome : *Introduction of Money*.
3. Pigou : *Veil of Money*.
4. Paul Einzig : *Inflation*
5. Keynes : *General Theory*, Ch. XVII.

1. Honoe Croome, *Introduction to Money*, p. 94.
 2. *Ibid.*, p. 95.

Q 8 What do you understand by 'money illusion' ?
 Discuss the implications of the concept for economic theory and policy
 (Delhi 1965)

Ans In any modern monetised economy all the goods and services which are bought and sold in the market exchange against certain quantities of money is determined by their prices. Money is the universal purchasing power. The buyers of the various factors of production namely, the entrepreneurs, pay out to the respective factors their respective prices. These factor prices constitute the cost to the entrepreneurs employing the factors and they constitute income when we look at the same phenomenon from the viewpoint of the sellers. Thus the landlords that hire out land and buildings receive rent, the workers that sell their labour receive wages, the capitalists receive interest and the entrepreneurs get their profit. Per unit of time a certain sum of money gets distributed among the sellers of the various factors of production. What do the sellers do with the money that they receive ?

Most of the income that is received by the sellers of the factors of production is spent on buying consumer's goods, a part is saved and invested and only a small proportion is probably hoarded. The money paid out by the private entrepreneurs as well as the government comes back to the employers again through the sale of goods and services. There is a flow of money from the buyers to the sellers and again from the sellers to the buyers. The flows of money however are not the real economic phenomena to be taken into account to find out the level of economic activity or the nature of production, distribution, exchange and consumption. Money is the veil that covers all the economic activities in any modern society but the veil has to be torn asunder to find out what goes on within the monetary garb. Apparently, it seems the entrepreneurs exhibit their spirit of enterprise in order to make money. The wage earners exert themselves to earn a certain amount of money. So is the case with the other factors of production. In point of fact the factors want the money not for its own sake but for the sake of the goods and services which money can help them to buy. Earning and spending of money are merely the means for the attainment and the use of the material requisites of well being.

The classical economists wanted to analyse economic phenomena in real terms independent of the cover of money. Thus Adam Smith

was concerned with the wealth of nations in real terms ; Ricardo was concerned with the real cost of production in terms of labour ; Marx took up the same line of thinking and argued that the real cost is the cost of labour and he raised on this hypothesis his entire theory of exploitation. Even Marshall seems to believe that real and monetary forces in the economy are to be separately analysed to discover what exactly is going on at the back of the veil of money. Monetisation and industrialisation proceed hand in hand and in countries which are highly industrialised the role of money appears to be of such decisive importance.

The old controversy over the real and the illusory role of money in its influence on the magnitude and direction of economic activity came to the fore again when the General Theory of Employment, Interest and Money of Keynes appeared in the year 1936. Keynes could not see eye to eye with the classical view of things. He thought that money has to play a more positive role than what was supposed by the classicists. It is well known that the thinking of Keynes was a sort of sharp reaction to the depression of the thirties. His main purpose was to explore practical ways and means to get out of the slump. He thought that it was the mischief of money that brought about the debacle of the thirties. He, therefore, urged on the adoption of certain definite positive monetary measures to stimulate demand and to re-start the economic mechanism of production, distribution, exchange and consumption. The illusion of money could be employed to provide a strong intoxication to the various factors of production to bring them back to a vigorous productive life.

In fact an interesting experiment was conducted in a village of coal miners in Germany in the midst of a deep slump to induce people to work by providing them with coupons as wages which could be used to buy their rations and the experiment proved a remarkable success. The coupons served the purpose of money.

The money illusion was badly criticised by the Soviet economists in the years preceding the inception of their first plan in the year 1928. They thought that want of money could never be a deterrent to the organisation of economic activity. In fact, they thought they could do without money. Money was abolished ; but they found it exceedingly difficult to get along without the use of money. The illusion had to go but money as a unit of account and as a medium of exchange had to be retained.

The question of the money illusion has come to the focus again in the light of the controversy between physical and financial planning in the underdeveloped countries. There is a school of thought which rightly believes that the availability of physical resources in the form of unemployed labour, cultivable waste land, unused mineral resources, and unemployed or underemployed capital equipment, power, transportation and other resources should be a sufficient condition by itself to warrant the production of such of the commodities as could be produced with the use of these resources. Money does not appear in their calculation at all, excepting for purposes of calculation. The input output tables can be compiled in physical terms and thus, it is being increasingly realised that money can be employed as a useful servant, without being allowed to play the role of the master.

A scientific appreciation of the precise role of money is of far-reaching importance for economic theory as well as policy. Economic theorising is motivated with the object of explaining the how and why of economic phenomena and in this connection the exact role of money and the illusory nature of things as presented by the behaviour of money must be properly analysed and appreciated by the economists. As Keynes points out the workers are always opposed to a cut in their wages in case the cut takes the form of less of money-wages but if the same cuts were to be brought about by a rise in the prices of wage goods keeping the money-wages constant, the resistance of the workers would be not particularly significant. The government also realises that there is a good deal of resistance to taxation but if the same resources be raised by way of deficit financing, there would practically be no resistance. Economic theory must make a scientific analysis of the role of money in the realm of production, distribution, exchange and consumption.

So far as economic policy is concerned, the most important thing to realise is that there is a lot of needless human suffering because of the unsatisfactory role of money. Can we really not get rid of business cycles and economic fluctuations? Can we not eliminate unemployment at least to tolerable limits? Why should there be a wastage of resources in the midst of so much of want around? The economic mechanism of a capitalist society which is founded on the role of money can be made to work smoothly

and can be made to serve the maximum welfare of the society, if the illusions of money could be dispelled to yield place to reality.

POINTS TO REMEMBER

1. In all modern monetised economies goods and services exchange for money. Money-making is the universal purpose at the back of all sales.
2. There is a flow of money from the employers to the factors and back again to the employers.
3. Money-flows cover the economic activities in the form of production, distribution, exchange and consumption. These activities are real and not the flows of money.
4. The classical economists thought of real wealth, real cost and real benefit.
5. Ricardo thought of real cost in terms of labour. Marx thought on the same lines. Marshall too thinks that Money is a veil.
6. The General Theory of Keynes brought the controversy to a focus. The current controversies about physical vs. real planning centre on the same point.
7. Economic theory as well as policy must distinguish between the real and the monetary for the benefit of the community.

Q. 9. Trace the process through which inflation and deflation have their impact on production and distribution.

(Delhi 1960)

Ans. Production and distribution in a capitalist society are guided and governed mainly by the movement of prices. The motivation for production is the desire for making a fortune. The prospects for making a fortune would obviously hinge on the success of the entrepreneurial classes in purchasing the factors of production at the lowest of prices and selling the products at the highest of prices and appropriating the 'surplus' by way of profits—a reward for the assumption of risks and uncertainties of an unpredictable future market, in anticipation of which the entrepreneurs have to undertake investment. The behaviour of the entrepreneurs is motivated mainly by the desire for profits which in turn depends on the excess of the sale prices over and above the cost prices. Consequently, the entrepreneurs' expectations regarding the probable turn of prices would have a decisive effect on their desire to invest and produce—optimistic expectations leading to a spurt in investment, employment and production and pessimistic

expectations leading to a shrinkage of investment, employment and production. Short term expectations particularly have almost a hysteric influence on the employment of investible funds as is evidenced by the diversion of a large proportion of the investible funds towards speculative ventures. Long term investment could not possibly be guided solely on the basis of the whims and fancies of the entrepreneurs as to the probable turn of prices. There is no reliable basis at all for making dependable projections about a distant future—not even the near future. Long term investments are undertaken by the entrepreneurs out of a complex of motives, the desire for profits being perhaps by far the most important. What matters for our purposes is the fact that production under capitalism depends on the volume of investment which is undertaken mainly on the basis of the prospects of making a fortune which depends eventually on the excess of the sale prices over the purchase prices.

Distribution, again, depends on the prices of the factors of production as determined by the specific demand for, and the supply of the factor in question. The apportionment of the national product as between the members of the community that collaborate in the process of production depends on the prices which they manage to command. It is relative scarcity as against demand which determines the price of the factors of production. Every increase in scarcity makes for more and more of exchange value, whereas every decrease in scarcity makes for less and less of exchange value. The problem of distribution has been handled traditionally on the basis of the nature of rent, wages, interest and profits—the respective rewards of the four factors of production, land, labour, capital and organisation. Here, again, we find that the pattern of distribution depends on the determination of the prices of the factors of production in one way or the other.

The impact of inflation and deflation on production and distribution has to be examined on the basis of the relationship that obtains as between (a) prices and production and (b) prices and distribution, since prices constitute the prime mover in guiding the destiny of the capitalist mode of production and distribution. The sole exception to the general rule would be production that is undertaken primarily for satisfying the needs of the family as in the case of the subsistence farmers of our country. The communist

pattern of organising production and distribution rules out the occurrence of inflation and deflation and hence, the question does not arise at all as to how inflation and deflation would affect production and distribution in a communist society.

Inflation can be defined as a situation in which the general level of prices keeps on rising primarily due to a stimulus that is continuously being administered by the ever-rising monetary demand in the face of inadequate physical supplies. In other words, it is a situation in which too much of money chases too few of goods. The point to note is that inflation is primarily a monetary phenomenon. A mere rise in the general level of prices is not an adequate proof of the existence of inflation. It must be proved further that the rise is caused mainly by an increase in the quantity of money in circulation either due to an increase in the amount of legal tender or due to an expansion of credit, or due to both. Deflation is the reverse process that brings about a fall in prices.

The question that comes up at this juncture is what are the consequences of an inflationary rise in prices on production and distribution. So far as production, much depends on what happens to profits during a period of inflation and as for distribution, the consequences would depend on the relative movements of the reward to the four factors of production. Broadly speaking, a period of inflation is a period of increasing profits owing to the succession of a series of periods of rising prices. Inflation in the early stages of its origin and growth provides a great stimulus to the entrepreneurs to undertake a large-scale investment to take advantage of the opportunities for making a huge fortune within a short period of time. The opportunity for quick and easy profits brings into existence a mushroom growth of big and small undertakings to produce variety of commodities that find a ready market. The demand for factors of production would also rise to fulfil the rising demand for goods. Incomes keep on rising, leading to a further rise in demand and reinforcement of the inflationary pressures. Production keeps on rising, the limitation to the expansion and diversification of production during a period of rising prices being mainly (a) non-availability of the factors of production due to their physical scarcity, and (b) the rising structure of costs which brings into existence a spiral of cost-price inflation. In the extreme case of galloping inflation, the people develop a feeling

of diffidence as regards the value of money and hence they try to get rid of it. There is strong preference for the storage of goods as against the storage of money. Eventually there comes the point of a 'crash' which ushers in the downward push of prices, profits, employment, income, demand, investment etc., which sets into motion the depression phase of the trade cycle. Production shrinks considerably due to a lack of incentive in view of the threat of falling prices. The over enthusiasm of the boom leads to the pallid and flabby downfall of a depression.

Inflation brings about a redistribution of income in favour of the entrepreneurial classes. In general we can make a two fold classification of income—(a) elastic, and (b) inelastic. Wages usually constitute a fairly inelastic form of income because of the tendency for wages to lag behind the prices. Interest on bonds is also an inelastic form of income. Income fixed on the basis of long term contracts such as rents also tends to be inelastic. The real value of all inelastic incomes must go down during a period of inflation. The entrepreneurs, however, make a great fortune because of the elasticity of their income which rises enormously during inflationary periods. Those who get a fixed income suffer the most due to inflationary pressures. A deflation causes a good deal of disturbance to the income of the entrepreneurs. Profits fall, wages take some time to fall, rents are likely to fall due to insufficiency of demand for investment. The fixed income groups have some advantage during a period of deflation if they manage their jobs. Unemployment, however, is likely to increase during a deflation as there is likely to be universal suffering due to a general fall in the national income.

POINTS TO REMEMBER

1. Production under capitalism is guided and governed by the desire for profits.
2. The possibility of profits depends on the excess of the sale prices over the purchase prices.
3. Expectations regarding prospective profits play a decisive role in conditioning the investment behaviour of the entrepreneurs. Short-term and long term expectations have their own influences.
4. Production depends on the size and pattern of investment.
5. Distribution depends on the nature of rent, wages, interest and profit.
6. To study the impact of inflation and deflation on production and distribution, we have to study the influence of inflation and deflation on investment and distribution through the role of prices.

SELECT READINGS

1. Keynes : *General Theory*.
2. Klein : *Keynesian Economics*.
3. Hansen : *Guide to Keynes*.
4. Dillard : *Keynesian Economics*.

Q. 10. Critically examine the following statements :

(a) **The inflationary potential of black or unaccounted money is less than that of white money.**

(b) **The control of black money is possible only through the control of white money.** (Delhi 1965)

Ans. The first issue is to examine the inflationary potential of black money as against the inflationary potential of white money with a view to decide which of the two would show a greater inflationary potential. The second is to find out how black money could possibly be controlled by controlling white money.

The first issue demands the settlement of the question, whether it is the black money or it is the white which leads to an increase in the demand for goods and services persistently in excess of the supply and, therefore, exerts an upward pressure on the general level of prices. The inflationary potential of money regardless of whether it is black or white depends on its capacity to create demand. The demand that matters in the context of inflationary potential is the demand for such of the goods and services the supply of which cannot be increased easily in response to the growth of demand. The measure of inflationary potential depends on the income-elasticity of demand and the price-elasticity of supply. If demand is highly income elastic, i.e. if growth of income brings about a big increase in demand and if the price-elasticity of supply is rather low, i.e., if the supply cannot increase much in spite of the rise in prices, there is a big inflationary potential. If demand keeps on increasing and if supply cannot be made to increase to the extent of the rise in demand, the prices are bound to rise in any free market economy. In order to know the inflationary potential of money, it is essential to know the nature of elasticity of demand and the nature of the elasticity of supply when there is an impact of a fresh flow of money in the market.

The impact of additional income, regardless of whether it is black or white, on the demand for goods and services depends on the

marginal propensity to consume, save and invest of those that receive the extra income In so far as the extra income comes into the hands of those that have a high propensity to consume, the demand for goods registers a big increase and in so far as the extra income accrues in favour of those, whose marginal propensity to consume is not high, the rise in demand would be negligible. If the propensity to save is high and the propensity to invest is low the demand would be low and hence, the inflationary potential would be rather low. If the propensity to save is high and the desire to invest also is high, growth in investment brings about a growth of income, growth of demand and therefore, it holds out the threat of a greater inflationary potential.

It must be noted in this connection that black money does not accrue in favour of those that are poor and whose propensity to consume is high. Black money generally comes into the pockets of those that are already wealthy and enterprising enough to face the risks (mainly political) of the black market. Their marginal propensity to consume would not be particularly significant. The demand potential and hence the inflationary potential would be reduced to that extent. The issue therefore, has to be settled with reference to the investment possibilities of black money as against the investment possibilities of white money. The investors have to account to the authorities for the sources of accumulation. The statement that black money has a lesser inflationary potential assumes that there are serious limitations on the investment possibilities of black money. The holders of black money would like to conceal their savings. They would prefer to keep their money in the lockers of the banks, lest their black dealings be exposed and lest they be called upon to face the law. In so far as black money is neither consumed nor invested, so much of money goes out of circulation as long as the hoardings remain idle, with the negative multiplier consequences which are of a beneficial character in an economy in which inflation is already running at a high level. White money, on the contrary, is all likely to be invested and hence, the income and employment effects would be positive, demand would rise and prices also would rise. In so far as there are certain inhibitions over the spending of black money and in so far as black money is driven into hoardings, inflationary potential is reduced. There are no such restraint on the spending of white money and, therefore, the inflationary potential of

white money is supposed to be greater. This statement, however, needs to be qualified.

Black money in small quantities can always be spent without attracting the attention of the public authorities. This is particularly so when the money is spent on consumers' goods. Black money can be invested in the names of several members of the family so as to make it less conspicuous. Black money can be employed in the black market to make some more of black money and thus, the inflationary potential could be reinforced. White money also could be hoarded if it is acquired by non-enterprising people and to that extent its inflationary potential would be reduced.

Black money and speculation are closely interrelated. Certain commodities which are expected to run into short supply could be cornered by the merchants on the strength of their black money, even when the banks employ stringent credit-queue measures. Monetary and fiscal measures employed by the government to bring the prices down can be nullified to a considerable extent so long as the traders have some access to black money. That is how inflation can be rampant on account of artificially created scarcity in market. Inflation and black money support each other when there is a great scarcity of essential commodities. It is, therefore, not correct to under-estimate the inflationary potential of black money.

The second issue of the question pertains to the problem of control of black money. The statement that is made in this connection is that control of black money is possible only through the control of white money. This statement is equivalent to saying that black markets would automatically disappear if a proper control is exercised over white money and with the disappearance of the black markets the source of black money would vanish. How far is this true ?

The black markets for different commodities have their roots in the basic fact that the demand for them runs very much ahead of the supplies. How do we account for this excess of demand to start with ? Excess of demand must have its roots in excess of income, because demand to be effective requires the support of adequate purchasing power. The further question, therefore, would be "how does this excess of purchasing power come into existence ?" The em-

irical historical data with regard to inflationary situations reveals that most of the situations emerge out of the issue of excess of white money. During periods of war when governmental income runs very much short of expenditure the authorities take resort to the easier method of creating money by printing more and more of notes. So is the case with the periods of rapid economic development. Large scale deficit financing is not disfavoured by governments that are too eager to augment investment with a view to accelerate the process of growth. The result is an enormous increase in the supply of money which is obviously white. The release of so much of excess of purchasing power must create an excess of demand over supply. Here are the roots of scarcity and black marketing and this is the reason why it is supposed that control of black money is possible only through the control of white money.

POINTS TO REMEMBER

- 1 The first issue is the inflationary potential of black money *vs* that of white money
- 2 The second is the nature of the relationship between white and black money
- 3 Inflationary potential takes its birth out of demand potential of extra income be it white or black
- 4 The marginal propensity to consume, save and invest must be taken into account to explain demand and prices
- 5 White money is likely to be more readily invested and black money to be hoarded and therefore the inflationary potential of the former is greater
- 6 Black money however encourages speculation and thus adds to inflationary pressures
- 7 Black money has its roots in excess of demand which again is the outcome of excess of white money. Therefore control of black money has to be done only through the control of white money

Q 11 Critically analyse the following statement—
 “Inflation for creating useful capital is utterly self destructive”
 (Bombay 1962)

Ans Whether or not inflation for creating useful capital is utterly self destructive depends on how we define the concept of inflation and what we imply by the term useful capital. It also depends on how the useful capital created through the process

of inflation during a given period of time is employed during the subsequent periods over the life of those assets which constitute "useful capital". The creation of capital *per se* does not ensure a sufficiently big and unbroken flow of the necessary goods and services to counteract the excess of demand over supply which is the prime cause of inflation which manifests itself in the form of rising prices over a fairly good length of time. When there is an excess of effective demand over the effective supply persistently over a good period of time, there results inflation in the economy in the sense that prices exhibit a continuous tendency to rise in spite of the efforts to peg them down at a lower level. Inflation refers to a general tendency though certain specific prices may decline even when there is a general rise in the prices of most of the commodities. A general rise in prices is only a symptom of inflation but not the definition of inflation since a rise in prices may occur as a temporary phenomenon as when there is failure of harvests affecting a sharp cut in the agricultural as well as industrial supplies—in the latter because of a cut in the supply of raw materials. It must be remembered that inflation originates from a quick rise in demand due to some reason or the other which it is difficult to satisfy with the immediately existing capacity to supply, even if that capacity be fully utilised or over-utilised. Inelasticity of supply in the context of a sudden rise in demand lies at the root of the genesis of inflation.

A quick rise in demand which persists over a fairly good length of time is possible only when a significant number of consumers acquire additional purchasing power which enables them to demand more of the commodities which they are already purchasing or demand commodities which they are not consuming earlier. Inflation generally comes into existence with a quick rise in the demand for consumers' goods which run in excess of the possible increase in supplies with the full utilisation of the existing factors of production. A phenomenon of this type is often seen during periods of war in which the belligerent countries and their allies incur a huge defence expenditure which swells the money-income of the receivers of that purchasing power and subsequently causes a significant rise in the demand for consumers' goods and services. Given a sufficiently elastic supply of the factors of production, additional supplies could be produced to meet the rise in

demand, but, often it so happens that there are serious bottle necks in the way of improving the factor supplies and hence of the supply of commodities whose demand has recorded a rise. Anything that causes demand to run very much ahead of the supply is almost sure to bring about inflationary pressures in the context of a free economy. In a socialist economy inflation comes in the form of not easily eradicable shortage of goods whereas in a capitalist economy the same phenomenon results in a rise in prices since the sellers are free to raise their prices to take advantage of the excess of demand. This being the general nature of inflation we have to analyse how far inflation of a particular kind—the one that is specifically employed for purpose of creating useful capital is likely to be utterly self destructive.

The precise point is whether or not deficit financing for purposes of capital creation is likely to generate anti inflationary forces in the very process of generating inflationary pressures. The belief in this sort of a proposition seems to stem from the not too implausible faith that creation of useful capital would especially in the context of a backward economy remove the principal obstacle to the production of those goods and services whose demand is likely to rise because of the fresh purchasing power disbursed in favour of the producers of capital out of created money. In the context of a backward economy the principal obstacle to production is an acute scarcity of capital meaning thereby a scarcity of some basic wage goods along with a scarcity of durable tools and equipment. It is often ignored that basic goods required to satisfy the consumer needs of the workers, preoccupied with the construction of capital are as much a capital equipment of a country as the durable means of production. In so far as capital scarcity is the principal obstacle to production in the context of a backward economy, inflationary finance to create capital should remove that obstacle to the extent it succeeds in point of fact in the creation of useful capital. The possibility of meeting demand with the help of the fresh capital created out of inflationary finance is the crux of the question to analyse. The fundamental questions which arise in this connection would be about the time lag between the creation of demand and the production of goods to meet the demand, the availability or non availability of complementary factors of production to act quickly upon the accessibility to capital.

and to seize the opportunity to exploit the market, the regulation of imports and exports with a view to co-ordinate the policy of inflationary financing for capital-creation with the regulation of supplies in the market, governmental preparedness to impose certain controls, if necessary, and the durability of the impact of capital-creation on the build-up of the capacity to supply the goods and services whose demand rises because of inflationary finance. Apart from these factors, the co-operation of nature would be of immense importance in the context of a backward economy in which agricultural production is likely to be the very backbone to determine the general level of prices. Given all these conditions, inflation to create useful capital may turn to be self-destructive in the sense that the capital thus created would automatically bring about a rise in the supply of those very goods and services whose demand rises subsequent to the injection of fresh purchasing power. These conditions and the possibility of their fulfilment in the context of a backward economy must be analysed to appreciate the "self-destructive" nature of deficit-financing for capital creation.

The shorter the time-lag between the creation of useful capital and its further employment for purposes of production of consumers' goods, the quicker would be the destruction of inflation. Similarly the shorter the lag between the disbursement of created money and the production of useful capital to be employed later for purposes of producing common goods, the quicker would be the destruction of inflation. The first condition is a question of alert and quick enterprise and the second one is a question of a wise selection of specific types of capital goods that could be produced as quickly as possible and employed immediately to produce those consumers' goods whose demand is likely to rise. Time-lag has to be minimised in both the directions. In the context of a backward economy it is doubtful whether adequate enterprise is likely to come into existence in response to the opportunities in the economy and in case private enterprise cannot be relied upon, state enterprise has not only to create capital but plan for its further utilisation to produce the consumers' goods whose demand is likely to rise. It is further doubtful whether the state can possibly set up the necessary administrative machinery to act quickly on the projects necessary to counteract inflation and whether there would be adequate efficiency to do the job. Certain time-lags seem inevitable and in so far as lags

are there, inflation appears inevitable

Further capital created has to build up a regular supply of consumers goods to counteract the regular increase in the supply of money since it is likely that money once created would continue to work unless it is later withdrawn deliberately by the government or hoarded indefinitely by the wealthy misers. The flow of money has to be matched by a corresponding flow of goods over time and hence is the relevance of the durability in the build up of the capacity to supply. In order to make the scheme work successfully, imports and exports have to be so regulated as to counteract inflation. Obviously much depends on how effectively a group of measures are undertaken by an efficient government and there cannot be any *a priori* conclusions.

POINTS TO REMEMBER

- 1 Inflation is a state of economy in which the demand for goods and services runs ahead of the capacity to supply over a fairly good length of time. Inflation is the outcome of excess of purchasing power injected in the economy.
- 2 The capacity to counteract inflation depends on the elasticity of supply of commodities whose demand rises. This in turn depends on the nature of the factor supplies in the economy.
- 3 In the context of a backward economy the major obstacle to production is scarcity of capital and therefore inflation to create capital is likely to be self destructive.
- 4 Capital is one of the missing factors and hence capital creation unless accompanied by enterprise, technological advancement, discovery of land etc. is not likely to be sufficient by itself.
- 5 Time lags between the injection of money and the creation of capital and the creation of capital and its employment to produce consumers goods would be inflationary in character.
- 6 Regulation of imports and exports to co-ordinate the policy of internal inflationary finance is also a necessary condition to counteract inflation.
- 7 The stream of money has to be made to match with a corresponding stream of goods and services and much depends on the efficiency of the productive machinery. It is difficult to come to *a priori* conclusions unless we take into account all the conditions.

SELECT READINGS

- 1 Keynes *General Theory*
- 2 Klein *Keynesian Economics*
- 3 Hansen *Guide to Keynes*
- 4 Dillard *Keynesian Economics*

Q. 12. What evidence would you require, in order to test whether an inflation is a 'cost inflation' or a 'demand inflation'? To what extent do you regard the distinction between these two kinds of inflation as useful?

(London B. Sc., 1964)

Ans. Inflation refers to a persistent rise in the general level of prices over a certain period of time owing to the continuous growth of demand very much in excess of the supply of goods and services. Inflation is the process of an uncontrollable rise in the general level of prices owing to the excess of demand over supply. It is rather difficult to define in precise terms what should be length of time over which the rise in prices should spread and what should be the extent of the rise in prices over some well defined base and what should be the magnitude of the excess of demand over supply. In fact different prices for different commodities would change differently in accordance with the specific market conditions of the things concerned in keeping with the relationship between the strength of demand and the strength of supply. Inflation refers to a sort of average rise in the general level of prices of all commodities. To start with the process may develop in some particular field characterised by special scarcities and in course of time, there would be a spread of the process almost over the entire economy. The rapidity and the extent of the rise in prices would be a matter of detail and it would vary from situation to situation. In short, inflation refers to a sort of uncontrollable rise in the general level of prices.

Obviously, the issue that comes up in the context of the general level of prices would be of the general demand for goods and services on the one hand and of the average cost of production of commodities on the other since prices in any free enterprise economy are determined by the forces of demand and supply. The explanation for the rise in the general level of prices must lie either on the demand side or the supply side or on both—the responsibility being divided between the two in accordance with some scheme of weightage. If the weightage be in favour of demand, a certain inflationary situation may be regarded 'demand inflation' and if it is on the side of supply, it may be called 'cost inflation'—when supply fails to keep pace with the growth of demand due to mounting cost of production. Mounting cost of production is the

surest index to show growing scarcity of the factors of production. In this connection, it must be remembered that demand and cost are not independent, unrelated entities. What is cost to the employers is income to the sellers of the factors and that income is itself responsible for the growth of demand. Cost and income are the obverse and the reverse of the same flow of the money—the one looked at from the stand point of the buyers of the factors and the other from the view point of the sellers of the factors. All the same, demand pull inflation and cost push inflation can be distinguished in the initial stages. When the process starts, it may be rather difficult to make any distinction between the two since both the causes feed each other and merge together to intensify the rise in the general level of prices.

These are the preliminary considerations in connection with the demand pull and the cost push explanations of inflationary situations. The real issue, now, to decide is the sort of evidence that would be required to judge whether in point of fact a given inflationary situation is caused by the pull of demand or the push of costs.

Inflation refers to an abnormal rise in the general level of prices. Any abnormal phenomenon appears to be abnormal only in relation to the normal. Unless there is a clear idea of what should be considered the normal situation with regard to the general level of prices, it would be impossible to decide whether or not there exists any inflation. It is essential, therefore, to collect some data about the general level of prices for a certain period of time—the average index of a decade immediately prior to the appearance of the first sign of inflation. The average cost of living index of the preceding decade may serve the purpose, if the interest centres around inflation and the cost of living. The term general level of prices is so comprehensive that it is difficult to put the concept to any concrete practical use. Well in any case, it must be decided to start with that there exists an inflationary situation as evidenced by the average index preceding the start of inflation and that average which pertains to a similar period thereafter. A certain amount of arbitrariness would be inevitable in deciding the length of the period to be taken into account, the number of commodities to be considered and the weightage to be assigned to the different commodities.

Agreeing to the fact that there exists a certain degree of inflation in a given situation, the next point is to decide whether it is demand-caused or cost-caused. In order to know whether or not a given inflationary situation is demand-caused, it is essential to know the growth of real output of such of the commodities whose prices have risen beyond certain limits. (The same commodities have to be taken into account for base year as well) As against the growth of real output, we have to pose the growth of money-income. If the growth of the latter be in excess of the former, there would be some ground to believe that excess of demand may have been responsible for the genesis of the situation on hand. The index of money income juxtaposed with the index of real output, covering all commodities or only such of them whose prices have risen beyond certain limits provides some evidence about the role of demand. The assumption underlying this analysis is that the income-elasticity of demand is highly positive. This assumption has to be proved.

Therefore, some evidence is required about the income-elasticity of demand. This can be known directly by a sample survey of the expenditure habits of the people in relation to their income over the relevant period. Total income received by the people during a certain period minus their idle savings may be taken to represent the demand for goods and services of the value of the excess of disposable income. The same reasoning can be applied to the government as well. The evidence required is about the proportion of income that goes either into consumption or into investment for certain periods of time, for demand always means either demand for consumption or the demand for investment. It is better to calculate the two separately so that the responsibility for the rise in prices may be assigned to the two components of demand separately, i.e., it should be possible to ascertain the extent of the rise in the demand for investment goods and the extent of the rise in the demand for consumers' goods.

It is also essential to measure the increase in the supply of goods and services over the same period of time over which demand is taken into account. The procedure for calculating the changes in supply would be the same. The average supply for the pre-inflation period would be the base and the increase in relation

Both the demand for goods and services and the demand for factors of production are greatly affected by the quantity of money in circulation. This does not mean that the quantity of money itself is not affected by the general level of economic activity. The supreme virtue of the general theory in the context of the quantity equation is the light that it brings to bear on the working of the economic factors subsequent to a change in the quantity of money. Keynes tries to find out why, after all, things tend to move in a certain direction. The Keynesian equation is an improvement over others in so far as it elucidates clearly the process that issues out of a change in the monetary situation. The cash balance theory examines the static role of money whereas Keynes examines the dynamic function.

POINTS TO REMEMBER

- 1 The Cambridge equations are a variety of the Quantity Theory of Money developed by the Cambridge economists. They have emphasised the store of value function of money as contrasted to the medium of exchange function by Fisher.
- 2 There are two versions of the Cambridge Quantity Theory namely, Keynes equation and Pigou's equation, and of the two versions, the former is superior to the latter.
- 3 The Keynes equation is also superior to the Fisher's equation.
- 4 The Keynes equation is also defective in that it takes into account only the price level of consumption units and is also based on the assumption of the given levels of income and employment.

SELECT READINGS

- 1 Marshall *Money, Credit and Commerce*, I iv
- 2 Keynes *A Treatise on Money*, Vol I Ch 10.
- 3 Robertson *Money*, Ch II
- 4 Helm G N *Monetary Theory* Ch 2

Q 16 Critically examine the Fundamental Equation of John Maynard Keynes

Ans John Maynard Keynes, in his book *Treatise on Money* poses a crucial question namely, what is the fundamental task of the monetary theory? According to him the fundamental task of monetary theory is not merely to establish identities or equations relating the turnover of monetary instruments to the turnover of commodities and services exchanged for money. The real task of

monetary theory is to treat the problem dynamically, by exhibiting the process by which the price level is determined. From this point of view Fisher's *Quantity Theory of Money* is of little analytical and practical significance, for his equation of exchange is a purely static identity and is based upon a simple idea that in an exchange what happens is that commodity moves in one direction and money moves in the opposite direction and so the quantity of money which moves in one direction is equal to value of commodities expressed in term of prices. It is obviously true but it does not give any precise clue to the causal process by which the value of money is determined.

The starting point of the fundamental equation of Keynes is an analysis of the changes in the demand for money which arises out of exchanges in asset preferences. This was, however, overlooked by the Transaction and Balance type of equations. It is a gross mistake to lump together all type of goods and not to make any distinction between consumption goods and assets like land, gold, securities, money, buildings etc. It is practically of no use to talk of P—the general price level—which includes average of so many prices and which interests none. Consequently, Keynes, in his 'fundamental equation' tried to discuss the problem of pricing commodities entering into consumption separately from prices of assets. He studied the factors determining prices of both types of commodities.

Keynes broke away from the traditional method of setting out from the total quantity of money but started instead with the flow of the community's earnings or money income with its two-fold division—(i) into the part which has been earned by the production of consumption goods and investment goods and (ii) into the part which has been expended on current consumption and savings. It is to be found that when the first part of the community's income is in the same proportion as the second or, in other words, when the output measured in terms of production of consumption goods and investment goods is divided in the same proportion as expenditure is divided between consumption and savings, then the price level would be equal to the cost of production. It is, thus, clear that when savings are neither more nor less than investment, the price level would be in equilibrium with the cost of production. If any disturbance were to occur in savings

and investment, the price level would correspondingly fluctuate

Before going further, it would be useful if we pause a little over definitions of certain basic terms that Keynes made use of in his analysis. First, there is the income of the community. Income is defined as the money income or the earnings of the factors of production or as the cost of production of the total output. All the three amount to one and the same thing. While including 'normal' profits—normal being that much amount of entrepreneurs' remuneration which would leave them under no motive either to expand or to curtail the scale of operations—income is taken to be constant throughout a certain period of time. Any increase or decrease in income is measured by an increase or decrease in the total capital of the community. It is really a strange treatment of income. Savings have been defined as the failure to spend the money income on the consumption goods. It can also be expressed as the difference between income and consumption. 'Profit' is defined as being the abnormal profit. When the actual rate of remuneration exceeds the 'normal' rate the entrepreneurs seek to expand the scale of their operations and *vice versa*. Some people speak of the term 'profit' as 'windfall', but Keynes preferred the term 'profit'. By investment is meant the net increment to the stock of capital, but by the value of investment is meant the value of increment to the capital stock.

Having understood the above definitions, we can turn our attention to examine the 'fundamental equation' propounded by J M Keynes.

E is the community's money income or the earnings of factors of production. It is also the cost of production of the total output. I' is the production of investment goods, so that $E - I'$ measures the cost of production of consumption goods. S is the amount of savings, so that $E - S$ is the amount of money that people are ready to spend on consumption goods. O is the total output. R is the volume of consumption goods and C is the volume of investment goods, so that $O = R + C$. \bar{P} is the price level of output as a whole. P is the price level of consumption goods. PR is the value of consumption goods or the amount of money that people spend on consumption goods. Thus we say that $PR = E - S$. Let us see how Keynes explains P . Since the amount of money

spent on consumption goods is equal to the difference between income and savings, we have the following equations:

$$\begin{aligned} PR &= E - S \\ &= E \cdot \frac{R+C}{O} - S \\ &= E \cdot \frac{R}{O} + E \cdot \frac{C}{O} - S \end{aligned}$$

But $E \cdot \frac{C}{O} = I' = \text{total cost of investment goods,}$

Hence, $PR = E \cdot \frac{R}{O} + I' - S$

Dividing both sides by R we get the following:

$$P = \frac{E}{O} + \frac{I' - S}{R}$$

In the above equation $\frac{E}{O}$ is the first factor and $\frac{I' - S}{R}$ is the second factor and these together determine P . $\frac{E}{O}$, the level of efficiency earnings as Keynes calls it, is the rate of earnings per unit of output and $\frac{I' - S}{R}$ is the abnormal profit per unit of consumption goods. I' is the cost of production of investment goods and $I' - S$ is the difference between cost of investment and savings. The difference between investment and savings must be zero. For, if there is any difference existing, it means that investment is not equal to the savings which will result either in abnormal profits or in abnormal losses. In the event of savings falling short of investment, there will be abnormal profits and investment falling short of savings will result in abnormal losses.

In each case there will occur a disturbance in the equilibrium of price and cost of production. Thus $I' - S$ is assumed to be zero and hence $\frac{I' - S}{R}$, the abnormal profits per unit of consumption goods, is also zero. When the second factor of the 'fundamental equation' is zero then naturally the equation becomes $P = \frac{E}{O}$. Thus price level is equal to cost of production or we can say that $PO = E$

If E is reduced in terms of money income (M) and its velocity

(V) the equation becomes $PO = MV$, as E becomes MV . Thus we see that the 'fundamental equation' bears a family relationship with the quantity equation. It is to be noted that this will happen when $I' - S$ is zero, which is possible only when there is full employment. Thus like quantity theory of money, this theory also assumes full employment position. Again, this equation fails to point out as to what is the cause of disturbance of equilibrium of the price level with cost of production since $I' - S$ is itself the disturbance.

Nonetheless $P = \frac{E}{O} + \frac{I' - S}{R}$ is a better tool of analysis than

$MV = PT$. It explains the behaviour of prices in the short period. It indicates the cyclical behaviour of income during a certain period. Income theorists conclude that it is the decision of people to spend or save, it is the decision of businessmen to invest or not to invest and also of the government bodies that income of the community fluctuates leading to a fluctuating price level. This equation also points out that since prices of consumption goods are determined by the general level of efficiency earnings and by the relation between cost of investment goods and savings, the government cannot do much with consumption expenditure directly. Because the immediate cause of steeply rising prices of consumption goods to be found in the existence of abnormal profits which is nothing but a reflection of disturbance in the second factor of the fundamental equation, i.e., $\frac{I' - S}{R}$ is more than zero. To reduce I' rather than to increase S will be a more appropriate measure, in the opinion of Keynes, to achieve quicker results. Thus the monetary authority should raise the rate of interest if prices of consumption goods are to be reduced. Keynes advocated monetary policy instead of fiscal policy to regulate price level.

Thus, J M Keynes succeeded in achieving a much more realistic and scientific approach which is nearer to human decisions and actions than $MV = PT$ is.

POINTS TO REMEMBER

1. The real task of monetary theory, according to Keynes, is to treat the problem dynamically rather than to establish statical equations.
2. Keynes examined separately the prices of consumption goods, assets, factors of production etc. π is the general price level which is nothing but a hotch-potch of all prices.

3. Keynes started with the flow of community's earnings or money income rather than with the total quantity of money.
4. In equilibrium the price level would be equal to the cost of production. Any discrepancy between savings and investment will cause prices to rise above or fall below the cost of production.
5. The 'Fundamental Equation'— $P = \frac{E}{O} + \frac{I - S}{R}$ and inferences drawn therefrom

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2. Halm, G.N. *Monetary Theory*.

Q. 17. Explain the concept of income velocity of money and discuss the factors which govern it (Poona 1966)

Explain the importance of the concept of the income velocity of money in the analysis of the relation between money supply and economic activity. (Delhi 1958)

It is the changes in demand and supply in the product and factor markets that are relevant to the explanation of price behaviour and not the changes in the quantity of money itself Discuss. (Delhi 1956)

Ans. The concept of income velocity of money is the outcome of a natural sequence in the process of growth of the Keynesian school of thought. Money, that is traditionally supposed to be passive and natural, is seen to play a considerable active role in the process of growth of the national product of a given economy. *The Quantity Theory of Money* that held sway prior to the appearance of *General Theory* of Keynes, concentrated its attention primarily on the problem of determination of the value of money rather than on the function of money in shaping the course of the flow of income that accrues to the various factors of production that collaborate in the creation of the income stream. The concept of income velocity throws a new light on the functions of money, especially under the capitalistic system of society in which all economic activities cluster around the pivot of money. The concept of income velocity subscribes to the ends of functional analysis in the monetary field.

Whether we take transactions version or cash balances version, the meaning is approximately the same, viz., given other factors,

the price level changes in the same proportion as the quantity of money. Refinements of the theory are there—in the form of introducing velocity of circulation of money, in the distinction between legal tender money and bank money and even in the form of cash reserve ratios maintained by the banking system. But, the theory as it comes to us, mainly speaks of one thing only, that the value of money, whatever we mean by it is an inverse function of its supply.

Now it will be granted that such a simple way of looking at the problem is quite deceptive. It is not that when we change M in the identity $MV=PT$, only P should respond to the change. There is every reason to believe that T should also change in magnitude. And thinking in terms of the Cambridge version we say that changes in money supply ought to show some effect on the income of the community. If, therefore, in response to changes in money supply, income also changes a fuller version of the theory explaining the value of money must be broad based and include the changes in income also.

The publication of the *General Theory* of Keynes paved the way for a right approach to the problem. Keynes himself had neglected changes in money and effects of prices because his main purpose was to analyse the changes in real income and employment. But the principles put forth by him shed light on the working of the economic system and the way real income of the community changes in response to various stimuli. In this connection, his theory of multiplier is especially instructive which describes how an injection of money income at one point of the economy generates a multifold real income in the economy provided full employment does not already exist. The traditional quantity theory would have stated that even in the depth of a depression, injecting the money supply would mean a proportionate rise in prices.

Detailing, therefore, in the income approach to the value of money by dovetailing the principles of *General Theory* to the principles of quantity theory, we first of all make a distinction between the income velocity of money and circulation (which includes Income and Financial Velocities of Money) velocity of money. The quantity theory takes into account the circulation velocity of money which is the number of times a unit of money on an average changes hands in a given period of time. But this changing of hands in its turn

may not be creating an equivalent money income. Money income will be created only as and when the expenditure is received by final factors of production in the form of wages, rent, interest and profits. However, here also a unit of money can cause to become income more than once in any period of time and it is the average number of times a unit of money turns up in the form of somebody's income that is called the income-velocity of money. Income velocity of money can be calculated by dividing the total money income earned by all the economic units of a country in a period of time by the average quantity of money supplied. Thus on one side we do not take the traditional as such, we pick out only that portion of it which shows up as income of someone and on the other we also ignore the traditional V. As Kent puts it, "the income theorists concentrate their attention upon the receipt and disposal of the total money-income of the people of the country—such income being all the money received as wages, interest, rent and other allocations resulting from production activity."¹ He goes on to say "if total money of the community happens to be \$200b, while average quantity of money available in circulation has been \$100b, then the income velocity will be two. Clearly, the circulation velocity will be much greater than income velocity because all transactions do not create money incomes. A D Gayer, explaining the meaning of income velocity, says that "we call the number of times money passes through the production sequence before again becoming income in any given period of time its income velocity (in contra-distinction from its transaction velocity)."² "In boom years the latter (income-velocity) appears to have been about 3 per annum in Great Britain and the United States. Obviously during depression it is likely to be markedly less because, as shown above, new spendable funds are not wholly employed in making new purchases or are utilised more slowly, part being held idle at each stage in cash or deposits."³

Having understood the meaning of income velocity, it follows that it would be more profitable if a link between the price level and money income were found in place of a link between price level and all kinds of haphazard transactions. For this purpose,

1. Kent, Raymond P., *Money and Banking*, p. 119.

2. Gayer, A D., *Monetary Policy and Economic Stabilisation*, p. 223.

3. *Ibid.*, p. 223

the income theorists proceed on the basis that all money expenditure on final consumption goods and finally purchased capital goods equals the sum of money incomes received in that period. It should not be difficult to establish the truth of this equality. All the expenditure incurred in the purchasing of final consumption goods and capital goods was naturally equal to income received by their producers and was divided into different factors of production in the form of profits (or losses), wages, rent, interest, etc. The money which was received by the producers of raw materials from the final producers was similarly again divided up into the profits (or losses) of the producers of raw materials and the wages, rent, interest, etc., paid by them to the factors of production which they in turn had employed. Thus all through there is no danger of double counting. We are only counting income of a factor which it received as a contributor to the final exchange value of the commodity. Thus the income received by all the factors of production in the economy is equal to the exchange value fetched by the goods and services produced by the commodity.

The difference between traditional quantity theory and income theory here, therefore, is that while quantity theory would include all transactions *at their full exchange value* in the calculations of T , income theory takes account of the value added at various stages only.

Now with this identity between total money incomes and total money expenditure on final consumption goods and capital goods, the income theorist would establish the value of money. The flow of money income has generated a flow of real goods and services and the value of money therefore, depends upon the relative strength of the flow of money income and the flow of real goods and services. Greater the income velocity of money greater will be the flow of money income generated by it and given the flow of real goods and services, higher will be the price level and lower will be the value of money. On the other hand to the extent that the flow of money income has been able to generate additional flow of goods and services, price levels as determined at the final end of purchases and sales will be lower. It is not denied that the above portrayal is a simple picture of reality and that, in fact, incomes generated tend to have long drawn effects in terms of the supply and employment of factors of production, but then these things can

easily be accounted for in a more realistic and less abstract picture. Further, it has to be granted that a major defect of the above approach is the comparatively scanty treatment of time lags involved in the generation of money income and the response in terms of output. But this problem should not pose any special difficulty. All that we have to do is to choose a certain period and find out the flow of goods and services in that period and the expenditure which is being pitched against that flow through the flow of income. If money income generated today is able to call for the production of goods only tomorrow, then to that extent today's price level will be higher and tomorrow's lower.

This last point presents interesting possibilities for the useful application of income-approach in matters of planning. If we calculate the time lags involved in the response of investment to the income generated and the time lags involved in the fructification of investment, we can calculate the various effects of governmental efforts on demand and supply of various commodities and hence their price level. It is interesting to note that income-velocity concept, in its greater detail enables us to split up the total income flows into various streamlets and sub-channels meant for the demand of various goods and services. Considering each individual channel of supply of goods and services and the corresponding channel of money demand flowing from money-income flow, it is possible to find out various individual price-levels. By considering the behaviour of various demand channels, in connection with the change in aggregate income flows, it can be found out how changing incomes are going to influence the demand for various commodities. In India, for example, it has been found that with rising income the demand for coarse grains is comparatively decreasing while that of superior grams and white sugar is increasing. Such an analysis can also be carried out for future projections of demand and supply, and necessary steps can be taken for the smooth and balanced working of the economy. For an underdeveloped country like India, this analysis presents a special scope for use in planning.

We conclude this part of the argument by emphasising once again that it is the flow of money income and the flow of goods and services which is of real relevance to the determination of price level and not the changes in the quantity of money as such.

For changes in the quantity of money may be counteracted or strengthened by the income velocity which in turn generates the demand and supply of consumption and capital goods. It is, therefore necessary to see in brief what are the major forces which go to determine the income velocity and to what extent the supply of goods and services responds to it in any given situation.

Since income velocity is calculated as total money income received in a period divided by the average supply of money in that period obviously one major determining factor will be the speed with which people spend their incomes. This expenditure, of course should not be of purely transactionary nature but should be able to generate money income of an equivalent magnitude. Such an expenditure, therefore has to be on final consumption goods or capital goods or it has to be a payment to various factors of production for their services. In other words, the expenditure should be in the nature of consumption or investment. Now both these expenditures are stimulated (and dampened) by well known causes. For example, consumption expenditure will increase in anticipation of rising prices, shortages upheavals or rising incomes while investment expenditure will be stimulated in anticipation of rising profits and demand. Following from the consumption and investment demands the demand for factors of production will be desired. Obviously when the demand in the commodity and factor markets is increasing, prices will automatically tend to rise the money supply will increase through the creation of credit and in the absence or shortage of bank credit, extra means of financing the new demands will be found out. For example, velocity of circulation of money will increase, and people will try to develop techniques of consumer credit, there will be building societies, more bills of exchange etc etc. As the Radcliffe Committee has pointed out in its Report, it is not the money supply as such which will limit the demand in any appreciable way, money market may be tight but people will find extra sources of finance and there are numerous ways in which the liquidity of other assets may be used to finance the enhanced demand.

In conclusion we can say, therefore that it is not the quantity of money as such or its velocity of circulation which is of real significance in the determination of price levels of much more importance is [the money income flow determined by the income

velocity of money and the flow of goods and services as determined in response to the money flow through various investment decisions and time lags involved in the fructification of those investments.

POINTS TO REMEMBER

1. The traditional quantity theory of money is especially defective when it ignores the effect of changing quantity of money and its velocity on economic activity.
2. The publication of the General Theory paved the way for a new approach to the problem, namely, the income one. Now the problem of pricing can be tackled by gauging the flow of money income and the flow of goods and services in response to that flow.
3. Income velocity of money is calculated as total money income divided by average quantity of money in circulation in a given period. Income velocity of money is almost always greater than the circulation velocity of money.
4. The income theorists proceed on the assumption that expenditure on consumption and capital goods finally purchased is equal to the income received by all the community during that period. Thus as against traditional theory the income theory takes only the value added at various stages rather than counting all the transaction values of the traded commodities.
5. Given income velocity, the quantity of money and the flow of output, we can calculate the price level and changes in it. By splitting up the income flow into sub-channels of demand and matching them against sub-channels of output flow, individual price level can be calculated and projected into the future.
6. This calculation of sectoral price level etc., is specially useful in an underdeveloped country embarking upon planned economic development. It also shows clearly that for price levels the demand for factors and commodities and the flow of output are of real importance and not the quantity of money as such.

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2. Gayer, A. D. : *Monetary Policy and Economic Stabilisation*, Ch. X.
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Q. 18. What are, according to you, the main criteria and the requisites for monetary equilibrium? Examine suitability of your criteria in the context of the prevailing Indian economic situation (Poona 1960)

Ans. It is an indisputable fact that money plays a decisive leading role in guiding the destiny of the capitalist order of eco-

nomies. The developments in the field of monetary theory ever since the appearance of the *General Theory* of Keynes in the year 1936 have brought to limelight the influence exercised by money in the determination of the total volume of employment and output. The presumed neutrality of money by the classical theorists was blown up by the incisive analysis of the Keynesian school of thought. The classicists believed that money actually is what it should be—only a servant at the command of the physical forces of the economy. This was not at all warranted by the facts of the situation. The relationship between monetary and general equilibrium is of great theoretical interest and practical significance especially so for countries like ours embarking on a large scale planned programme of development.

The traditional treatises on economic theory neglect the monetary problems, their working and their impact on the physical side of the economy. The main reason for this was that the classical economists emphasised the role of money only as the medium of exchange and not as a store of value. It is a peculiarity of all systematic treatises on orthodox economic theory that there is no minor connection and integration of monetary theory with the central theory of prices. Usually the monetary theory is only a much loose appendix to the theory of price formation.¹ The phrase money is only a veil recurs again and again.² Actually for various reasons it is theoretically quite difficult to integrate the two aspects, namely the monetary and physical aspects of the economics. The two are interconnected and if monetary forces do not balance the physical side of the economy is bound to experience a change. The way in which monetary forces behave as to remain neutral in their impact on the making of the economy is called monetary equilibrium.

We must remember that monetary forces have an inherent tendency to generate a cumulative disturbing effect on the economy once they are not in balance. The physical side of the economy if there is neutrality of monetary forces is however automatically restored to its equilibrium if it is disturbed. For this reason the study of monetary equilibrium has become all the more imperative.

1 Gunnar Myrdal *Monetary Equilibrium* p 10

2 *Ibid* p 11

The reason why monetary theory cannot be integrated into the general theory of demand and supply as such is precisely this that the two aspects of the economy are quite different. For example in the market the price of any commodity is determined by the strength of its demand and supply; but while other goods and services leave the flow of circulation when they are finally purchased by consumers, money stands as its guard; the axe of money does not destroy it or take it out of circulation. Similarly while in general equilibrium theory, we can analyse the conditions of equilibrium with reference to a moment of time, in monetary theory we cannot do so. Money has the peculiar characteristics of store of value and the ability to get contracts made in its own terms. Inevitably, the introduction of money brings the theory to a lower level of abstraction and makes it more realistic and dynamic in nature. Again, while other goods and services have their own utility, money has not. Demand for money is derived from the demand for other goods and services which in turn depend upon their price (which is the reverse of value of money). This circular reasoning and the difficulty that money as such does not leave the flow when it is used, makes the problem quite complicated. It is imperative to examine the conditions which ensure immunity from monetary disturbance. A situation in which the monetary forces do not play dynamic role either positive or negative could be called a situation of monetary equilibrium.

Now the question arises how to recognise whether in any particular situation monetary equilibrium exists or not? In order to do this, it has to be noted first that once monetary equilibrium is disturbed, it generates a cumulative tendency for the economy to deviate away from its equilibrium position unless counteracting forces set in to check it. When the economy is in balance, naturally such a balance can be only of a stationary type with minor changes in individual items. Such an economy, further, will not be even progressing or decaying, for such a process involves change, which implies disturbance of equilibrium. The existence of monetary equilibrium can be discovered only *ex-post facto*, i.e., after the event. We can take some past period and find out whether the economy has undergone a process of change or not and on that basis we will be able to find out whether monetary equilibrium existed in that period or not. Further, on that basis, if the mone-

tary equilibrium has not been there we can judge on which side of equilibrium position the economic system has moved. Since no economy is likely to remain in equilibrium for a very long time and since it will become difficult to judge in that case whether the economy has remained in equilibrium or not it is necessary that the period taken must be a reasonably short one. In that period we take various elements in the economy and see how they behave. These elements are the crucial elements which go to influence the investors' decisions. These elements are 1. Revenue and cost gains or losses and 2. the portion of the investment gains and losses which consist in a difference between the anticipated production cost of real capital and the actually realised cost. The first of these elements deals with the profits and losses of investment and therefore induces the investors to move on further towards expansion or contraction. The second element indicates to what extent the expected price of various factors of production and other technical relations is being realised. If calculations have been made in the wrong way there will be a difference between the expected and realised costs and hence an inducement to contract or expand the economy. If the economy is in the phase of contraction value of the first is negative but of the second positive the sum total is negative. In the upward movement the reverse is true. In a state of monetary equilibrium the aggregate of the indicated gains and losses for the economy as a whole should be zero. Its magnitude should be a measure of the intensity to deviate from equilibrium in one or the other direction.

Now in order that the monetary equilibrium should exist certain conditions must be satisfied. In this connection it is well to remember that Wicksell the propounder of monetary equilibrium has used the concept of what he variously called the real, the 'normal' or 'natural' rate of interest as distinguished from the market rate of interest. This natural rate according to Wicksell refers to the productivity of investment which the investors will be comparing with the market rate of interest. If the productivity of investment or the natural rate is more the people will invest and if it is less they will curtail investment. We have seen the main criteria of the indicators of monetary equilibrium which will be there only if monetary equilibrium is realised and according to Wicksell monetary equilibrium can be there only if natural rate of

interest is equal to market rate. If the two differ, a cumulative process away from the equilibrium position starts and never stops till by some means or the other equality between natural and market rates is brought into existence. For example, if the natural rate is greater than the market rate, it is profitable to make investment and the process of changed production of consumption and production goods will start and so long as the natural rate remains greater than the market rate, there is no reason why this expansionary process should stop. This concept of natural rate was later on used with advantage by Keynes in the form of marginal efficiency of capital which is the expected net return on investment. Keynes explained that investors will increase or curtail their investment plans according as marginal efficiency of capital is greater than or less than the rate of interest.

Now this condition, that if monetary equilibrium is to exist there must be an equality between the natural and market rates, works through three different manifestations of price formation :

1. in the field of production ;
2. in the field of capital market ,
3. in the field of commodity markets.

We can say that in order that monetary equilibrium may exist, certain conditions in these three fields should be satisfied which briefly are as follows :

(1) In order that investors should have any additional inducement to investment or to curtail investment, marginal physical productivity of capital must be equal to the natural rate. However, we can very well see that such a condition is really not adequately stated. Wickseil apparently lost sight of the fact that this marginal physical productivity in itself cannot have any meaning for investors. They will be interested in the monetary profits of their investments and, therefore, we should think not of the marginal physical productivity but of the marginal revenue productivity of investment.

(2) Having found demand for capital on the basis of natural and market rate of interest, it is further necessary that demand for and supply of savings in the capital market must be equal in order that market rate of interest should not change. Savings, according to the classical economists, are a direct function of the rate of

interest, while the demand for investment is a direct function of the natural rate and an inverse function of the market rate. In order, therefore, that investment plans should not undergo a change, it is necessary that equality between natural and market rates should also be able to bring about an equality between saving and investment.

(3) The third condition that in the commodity field prices of consumption goods should be stable, follows from the above two conditions. The condition of stable capital goods prices is not necessary because the demand for and hence the prices of capital goods are derived from the prices of consumption goods. In the case of equilibrium, therefore, production and prices in the consumption goods sector must show stability.

Now let us turn to the suitability of the criteria of monetary equilibrium in the context of Indian conditions. It is apparent that the existence of monetary equilibrium implies a static state for an economy. The moment an economy undergoes a process of change, monetary equilibrium cannot be said to exist. Further it is necessary that the way we have analysed the conditions of monetary equilibrium, the monetary and financial institutions of the economy should be very sensitive. If the concept of monetary equilibrium is to have any useful meaning, it is necessary that the economy must have a developed money market, investment market and other financial institutions so that small changes in natural and market rates are quickly and constantly transmitted to various nerve centres of the economy pushing the economy towards the equilibrium or away from it. Now in an under developed country like India we find, firstly, that the requisite sensitivity and maturity of various organs of the economy are not found for the concept of monetary equilibrium to have any useful meaning, and secondly, even if monetary equilibrium was a concept applicable to such an economy, it would not be desirable to try to attain it. In India the money market is not fully developed. Quite a large portion of the Indian economy is still functioning through the barter mechanism. The institutions of monetary economy are either mostly unknown or under developed in the countryside. Even in cities the commercial banking sector and the indigenous banking sector have developed separately. Further, in India the investment markets and other financial institutions are not so well developed.

as to take continuous notice of changes in the "market rate" and "natural rate" and react to it. The accessibility to the capital market is largely conditioned by one's own standing and contacts rather than the reliability of the prospects of the investment proposed to be undertaken. Lastly, what India needs today is not an abstract theory of what monetary equilibrium is but a concrete thesis as to the various measures she should adopt for the development of her economy. Though Myrdal says that the conditions of monetary equilibrium "do not signify a 'virtual reality' or tendency, but only state the conditions necessary in order that the actual economic development in progress shall not follow a Wicksellian cumulative tendency," in context of only an economy which satisfies certain conditions of its own. In India, we have far greater rigidities in the form of technical and social blockades than are usually thought of. Our problem is not to generate a cumulative process upwards which should be quite an easy task in a developed economy but to generate forces of real development in a planned and co-ordinated manner. We have to think of real balances and problems entailed in creation of real resources, we have to think of creating an imbalance in the present situation not in the monetary sphere but in the real sphere in order that India should progress. Our immediate task is not one of establishing an equilibrium either monetary or general. We have to deliberately plan a release of the forces of disequilibrium so that the economy takes rapid strides in the direction of an active and vigorous construction of productive capacity. Monetary equilibrium in India would be an obstacle to progress.

POINTS TO REMEMBER

1. The traditional economic theory regards monetary forces as neutral which, in fact, often they are not.
2. It is quite difficult to integrate the monetary and general equilibrium theory into one because of certain differences, e.g., (a) while other goods and services leave the flow of circulation when sold finally, money does not, (b) general equilibrium can be treated at a moment of time and is necessarily static, while introduction of money must make the economy dynamic and less abstract.
3. Since monetary forces necessarily act upon non-monetary aspect of the economy in the form of production employment, etc., monetary equilibrium will be that situation in which monetary forces are neutral and do not disturb the non-monetary aspects of the economy.

4. The main criteria of the monetary equilibrium are that the entrepreneurs should not be making any gains or losses in terms of sales or costs and if they do then this should be compensated exactly by a saving or extra expenditure in terms of excess of expected cost over the realised cost of production
5. If the first element is negative, and the second positive while the sum of the two is negative then the economy is moving downwards from the equilibrium position, and if the first element is positive and the second negative, but the sum is positive, the economy is moving upwards
6. Broadly speaking, the condition of monetary equilibrium is that the natural rate of interest be equal to the market rate of interest, which when realised manifests itself in three conditions—an equality between profitability of investment and the market rate of interest, an equality between supply of and demand for savings and an undisturbed state of prices in the consumption goods sector.
7. The concept has a meaning only with regard to developed countries having a developed money market, financial institutions sufficient mobility of factors of production and an economy highly sensitive to changing conditions

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Q 19 How will you explain in terms of monetary theory the possible co existence of inflation and high rates of interest? (Delhi 1961)

Ans The co existence of inflation and high rates of interest adumbrates an apparent state of inconsistency—the existence of a situation in which the rates of interest continue to rule high in spite of an abundance of money in circulation. Inflation could be defined as a situation in which too much money chasing too few of commodities causes an abnormal rise in the general level of prices. A rise in the prices taken by itself is not, however, a conclusive proof regarding the existence of inflationary conditions in the economy. Floods, droughts, pests and diseases might destroy crops in a particular year thus causing a great rise in the prices of agricultural commodities. A curtailment in the supply of industrial raw materials such as cotton, jute, oil seeds etc., might consequently hamper the production of some industrial commodities as well, leading to a rise in their prices. Such a rise in the general level of prices could not possibly be designated 'inflation' in the right sense

of the term. Inflation originates primarily from the pumping into circulation of too much of money, as during a period of war or during a period of rapid economic development when a large quantity of money gets expended due to the exigencies of a war or the inevitable needs of a rapidly growing economy. For inflation to come into existence, the rise in prices must necessarily originate from the existence of too much of money in circulation in a given situation in which the other things remain normal prior to the origin of the change in the supply of money. The situation undergoes a radical change subsequent to the increase in the supply of money. The prices register a steep rise because of the impact of excessive demand owing to too much purchasing power in the hands of the buyers. The indicator par excellence of the existence of an inflationary situation is a steep rise in prices brought about by a great increase in the quantity of money in circulation.

The apparent contradiction involved in the existence of high rates of interest during a period of inflation arises from the fact that the rates of interest continue to rule high, despite an enormous increase in the quantity of money in circulation. Seemingly, this goes against the law of supply which states that an increase in the supply of a commodity, other things remaining equal, brings about a fall in the price. Accordingly, an enormous increase in the supply of money as during a period of inflation ought to bring about a fall in the rates of interest which is nothing but a form of price paid for the services of money. This ought to happen, should the other things remain equal as postulated by the law. There is, however, a possibility that the rates of interest might remain high in spite of the increase in the supply of money. The reasons for the existence of this phenomenon are to be sought in an analysis of the 'other things' which are closely connected with the determination of the rates of interest in a given situation.

In accordance with the liquidity preference theory of the rate of interest, what determines interest is the demand for, and the supply of money. The demand for money arises out of the liquidity preference of the people to satisfy their precautionary, transactions and speculative motives. The supply depends on the monetary and fiscal policies of the state. The demand for and the supply of money taken in conjunction would determine the structure of the rate of interest. The existence of an inflationary

situation implies a state policy which injects large quantities of money into circulation. In other words, it connotes a great increase in the supply of money.

If the rates of interest are to be high in spite of great increase in the supply of money, there must be a serious cause operating on the side of demand which not only annuls the excess of supply but leaves such a powerful impact on the market, that the rates of interest continue to rule high. The precise point to consider is why there should be such a great rise in the demand for money during a period of inflation as to sustain interest rates at a high level even in the face of an enormous increase in the supply of money.

According to the Keynesian school of thought, the most important component of factors that influence the demand for money in a capitalist society is the motive for speculation. This motive gets tickled sharply during a period of inflation in view of the bright prospects of amassing a fortune, within the shortest period possible with an indulgence in speculative activities. The risks of speculation are by and large eliminated, owing to the almost assured further rise in prices which, inflationary conditions are bound to generate. Consequently, the rash as well as the not so rash sort of entrepreneurs can very conveniently look forward to making a fortune availing themselves for the opportunity offered by the prevalence of inflationary conditions in the economy. Forward marketing marks a brisk and swift expansion, leading to an enormous increase in the demand for money. In view of the great expectations regarding profit possibilities, the entrepreneurs would not regard even an abnormally high rate of interest too much to get the necessary resources to indulge in speculation. Here is a possible explanation as to how and why the rate of interest is likely to remain high during a period of inflation.

During a period of inflation generally speaking, there is brisk economic activity due to the increase in the purchasing power in the hands of the buyers. There is an unusual quick turnover of business, with an unprecedented expansion of economic activities. More and more of money is required to satisfy the transactions motive. The total volume of business expands so much that each person handles more of money than before and hence, the total monetary requirements of the community mark a remarkable in-

crease. Consequently, even the ever increasing quantity of money is felt to be insufficient to satisfy the requirements of the community.

During periods of rising prices the marginal efficiency of capital increases enormously, providing all too tempting incentives to the entrepreneurs to undertake large-scale investment to make hay while the sun shines. Every entrepreneur would like to make a fortune prior to the arrival of a "crash" and hence, the demand for investment and quick turn-over marks a tremendous increase, creating an unusually big demand for money. In view of the unexpectedly high marginal efficiency of capital, the borrowers do not mind paying unusually high rates of interest. There is always a comparison between the marginal efficiency of capital and the rates of interest to be paid for different types of loans and so long as the former exceeds the latter by a fairly good margin, no rate of interest is too high.

In a capitalist economy, the entire machinery of production turns on the lever of the behaviour of profits and inflationary conditions so long as there are no fears of a downward turn, and so long as excellent opportunities of making a fortune exist, unless there is a hyper-inflation in which the costs rise so sharply as to upset the profit calculations. Rising prices invariably provide the best incentive for brisk business and this seems to be the principal explanation as to how the rates of interest could possibly continue to rule high in spite of an enormous increase in the quantity of money. It would be wrong to concentrate attention on only one side—namely the supply side, and contend that increased supply ought to bring down the rate of interest. The demand side is equally powerful. The result depends on a tug of war between the two.

POINTS TO REMEMBER

1. There is an apparent state of inconsistency in the co-existence of inflation and high rates of interest,
2. Inflation implies an enormous increase in the quantity of money. Despite an increase in the supply of money, why should the interest rates be higher.
3. The explanation of the demand for money in terms of the Keynesian liquidity preference theory.
4. The great increase in speculation during a period of inflation to the demand for money.

5. Expansion in business and the need for more and more of money.
6. Comparison between the rates of interest and the marginal efficiency of capital.

SELECT READINGS

- 1 Robertson, D H *Essay in Monetary Theory*
- 2 A E A *Readings in the Theory of Income Distribution.*

Q 20. Suggest one or more useful definitions of liquidity. How could 'liquidity' thus defined be measured?

(London, B Sc, 1964)

Ans The concept of liquidity was brought to the fore by the General Theory of Keynes. A thorough going analysis of the motivation for saving and the keen desire not to part with one's saving was undertaken, perhaps, for the first time by the General Theory in the context of an attempt to explain the nature of the rate of interest. The earlier classical economists always believed that interest was a reward for the sacrifice of consumption which saving necessarily entailed and on this basis they thought that the rate of interest was a reward for the restraint of consumption. It was Keynes who pointed out that there is a big difference between the act of saving and the act of parting with one's saving in favour of another for a specified period of time and for a well defined reward. Keynes therefore, held the view that the rate of interest is a reward for parting with one's ready command over purchasing power. In accordance with this concept liquidity could be defined as one's command over ready purchasing power.

If one takes an extremely narrow view of things ready purchasing power can be identified with cash hoardings. Cash hoardings give a ready command over purchasing power since the cash thus held could be taken out at any time and commodities could be obtained from the market in exchange for cash. This definition suffers from extreme narrowness and unnecessarily it restricts the idea of liquidity to mean mere cash hoardings. One may have command over immediate purchasing power in several other ways besides one's command over cash hoardings.

One can purchase anything in the market without actual cash payment if one enjoys some credit in the market. It is not necessary that one should have command over ready purchasing power. One's credit has to be taken as a sort of ready purchasing

power. In addition to the credit enjoyed with the shop-keepers, one can add to one's ready purchasing power if the bankers allow overdraft facilities. This is the credit with the bankers which also is ready purchasing power. Ready purchasing power could also be acquired without much loss of time, by converting some of the assets into cash at a very short notice. The market for some of the assets is always there at one's disposal. Thus one's gold holdings or the stocks and shares or other assets of this type could always be disposed off to realise cash and to gain ready purchasing power. Other assets as well which appear to be apparently not liquid could be either pawned or sold to gain liquidity as and when required. One's capacity to borrow at will is really a sort of ready command over purchasing power. The definition that liquidity is ready command over purchasing power becomes too wide and that it is the sum of one's cash-hoardings becomes too narrow. The former includes too many things and renders measureability almost impossible. The distinction between money and non money almost disappears. To calculate the value of all the assets which could be converted into money becomes rather difficult.

The real problem is not one of convertibility of assets into cash but the amount of time required for the conversion. The time required in the case of cash is zero and it is almost negligible in the case of demand deposits against which cheques could be issued at any time. Cash held, demand deposits and the extent of overdrafting allowed could be the sum total of immediate purchasing power. To measure the value of credit purchases is a rather difficult job. The average credit purchases of a few years which are normal could be taken to stand for the general ready purchasing power so far as credit is concerned.

Yet another problem that arises in connection with the convertibility of assets into cash is that the exact value of the conversion value is rather difficult to determine since the values of different assets keep on changing in accordance with the conditions of the market. For instance, if some people hold certain stocks and shares and if they want to dispose them off on the exchanges, it is not possible to know in exact terms how much of cash they would be able to realise. This problem becomes all the more difficult in the case of durable assets like houses, land, vehicles, machines etc. Owners of these assets are likely to enjoy a good deal of credit in

the market even if they do not have to convert their assets into cash in times of emergency. It is very difficult to determine the quantitative value of that credit

The difficulties with regard to the measurement of liquidity arise because of the fact that modern economies have thrown up institutions to impart liquidity to illiquid assets. In the highly advanced economies the distinction between liquid and illiquid assets appears to be of little importance in view of the ever present possibility of converting illiquid assets so called into liquid assets at a very short notice. To have liquidity one has to have some assets regardless of whether those assets are held in the form of cash, stocks and shares, gold and other forms of property. The concept of liquidity defined in terms of 'ready purchasing power' appears, therefore, to be of little practical value. It is difficult to define its limits and hence, it is rather difficult to quantify the extent of liquidity during any given period of time.

Any useful definition of a concept must serve the purpose for which it is designed and the purpose of defining liquidity in the context of the rate of interest is to see how much of their income people hold back in the form of ready cash to meet emergencies to provide for their daily transactions and to provide for the rainy day. The quest in this connection is directed towards a determination of the supply of loanable funds in the money markets since the rate of interest is determined by the demand for funds given the supply. The demand side is examined on the basis of the marginal efficiency of capital in relation to the rate of interest and the supply side is examined on the basis of the quantity of money in the market. The effective quantity that matters during a given period of time is that quantity which is actually used. A certain proportion of the supply of money is actually removed out of circulation because of the demand for liquidity. The problem is to determine how much of money is removed out of circulation during a given period of time. One has to make the assumption that some money would not be supplied at all in the market in spite of the existence of demand. That portion which remains unutilised due to deficiency of demand does not have to be included in the cash hoardings on account of liquidity preference. In this sense, only such of the cash hoardings of the people and such of the cash reserves of the banks can be treated as

liquidity-born reserves as are determinable and attributable to the liquidity motive.

POINTS TO REMEMBER

1. The concept of liquidity came to the fore with the appearance of the General Theory in 1933.
2. The context was the analysis of the factors affecting the rate of interest. Keynes wanted to find out how much of money is required to satisfy the demand for liquidity.
3. Liquidity could be defined as immediate command over purchasing power.
4. One can have immediate purchasing power on the basis of one's command over cash, capacity to borrow, capacity to buy on credit etc.
5. 'Immediate purchasing power,' therefore, is too wide a definition, difficult to measure.
6. In the modern economies institutions have come up to impart liquidity to illiquid assets. The distinction between the two is very much blurred.
7. The definition that suits depends on the purpose for which the definition is required.

Q. 21. "The rate of interest is determined by the demand for idle balances in conjunction with supply of money over and above the needs of transaction." Discuss.

(Delhi 1960)

Examine the statement that the demand for money depends upon the interest rate and the level of national income

(Poona 1959)

Examine critically the full implications of the statement that the rate of interest depends primarily on the decision about the form in which wealth shall be held

(Delhi 1958)

What is the contribution of Keynes to the theory of interest? How, according to the Keynesian theory, does the rate of interest affect income?

(I.A.S. 1955)

Ans. According to the Keynesian theory, interest is not a reward for "wasting" or abstaining from consumption as the classical school defined it, but "a reward for parting with liquidity for a specified period" or for not hoarding. Interest is not only paid for money. The possession of money lulls our disquietude and interest is the price which has to be paid to the lender to affect the disquietude involved in parting with the liquidity.

The rate of interest according to Keynes is determined by the supply of money on the one hand and the demand for money or the 'liquidity preference' on the other. The supply of money is fixed by the banking system and cannot be altered by the public and, therefore, at any point of time it may be taken to be given and constant. The real determination of the rate of interest is then the liquidity preference.

But what is precisely meant by the phrase liquidity preference? In plain sense, it means the demand for money for using it for those purposes which money performs in the economic system, e.g., serving as the unit of account and medium of exchange. In the technical sense, the concept of liquidity preference implies the preference of the people to hold wealth in the form of liquid cash to other non liquid forms like bonds, securities, bills of exchange, land, gold, capital equipment etc. This demand for holding money in the form of liquid cash should be clearly distinguished from the demand for income. Income is a means to satisfy wants and since human wants are unlimited, the demand for income is infinite. But the demand for money is limited—it is not always wise to hold whole of income or wealth in the form of liquid cash. This is so because holding of money involves on the one hand a cost—the interest lost i.e., the interest income that could be earned by lending it to others, and on the other hand the holding of money lulls our disquietude. Every individual strikes a balance between the gain and loss and decides how much of his wealth it would be beneficial for him to hold in the form of liquid cash and how much in other non liquid forms.

But why do people prefer to hold liquid cash to other forms? What is the explanation of the phenomenon of liquidity preference? Here Keynes gives us the psychological motives which induce people to demand money or hold 'idle cash balances'. People demand liquid cash on account of the three fundamental motives namely, 'the transaction motive', the 'precautionary motive' and the 'speculative motive'.

The transaction motive refers to the desire of the people to hold wealth in the form of liquid cash in order to conduct smoothly the day to day transactions or as Keynes has put it, 'to bridge the interval between the receipt of income and its dis-

bursement"¹ The average amount that a person keeps for transaction purposes depends upon the size of his income, the length of the interval of the receipt of the income and the method followed in regard to payments. The precautionary motive represents the desire to hold cash balances in order to be able to meet any unforeseen contingencies in future like illness, unemployment etc., without any difficulty. The amount of money required for satisfying this motive will differ widely with individuals and business firms according to the level of income, the state of social security, the nature of business, access to credit market and so on.

The speculative motive refers to the desire to hold money in order to make a capital gain. It is possible for people to make capital gains by borrowing money when the rate of interest rises. Alternatively, speculators can secure profits by purchasing bonds when their prices are low (i.e., the rate of interest is high) and selling them when their prices are high (i.e., the rate of interest is low).

The transaction and precautionary demands for money are mainly "a resultant of the general activity of the economic system and of the level of income."² The first two types of demand for money are fairly stable and constant over a short period of time as the levels of income and employment are not subject to significant changes over the short period. The speculative demand, on the other hand, belongs to an entirely separate category. It is highly responsive to changes in the rate of interest. If there is a change in the rate of interest, the cause is to be sought in the changes in the speculative demand rather than in the changes in the transaction and precautionary demands as they are more or less stable. That is why Keynes settles down upon the speculative demand for money as the real and ultimate determinant of the rate of interest. This type of demand arises on account of the uncertainty regarding the future rate of interest. The speculators hold cash on the basis of their individual expectations about the future rate of interest but no one knows for certain what exactly the rate would be. It is this "uncertainty as to the future course

1. Keynes, *op cit.*, p. 195.

2. *Ibid.*, p. 196.

of the rate of interest which is the sole intelligible explanation of this type of liquidity preference' ¹

Let M_1 be the total quantity of money held by the people for transaction and precautionary purpose, y the level of income and L_1 the liquidity function corresponding to the transaction and precautionary demand for money. Then we have,

$$M_1 = L_1(y)$$

If M_2 be the quantity of money held for speculative purposes, r the rate of interest and L_2 the liquidity function relating to the speculative demand, then we have

$$M_2 = L_2(r)$$

If M be the total supply of money, then the composite liquidity function can be written as

$$M = M_1 + M_2 = L_1(y) + L_2(r)$$

or

$$M = L(r, y)$$

In the liquidity function it is postulated by Keynes that the demand for money is positively correlated with income—an increase in the level of income implies a rise in the demand for money and *vice versa*. On the other hand, it is negatively correlated to the rate of interest—a rise in the rate of interest reduces the demand for money or in other words, an increase in the demand for money leads to a rise in the rate of interest and *vice versa*.

Fig 2 on page 115 represents the supply of money which may be taken to be given and constant and that is why supply of money curve QM is a vertical straight line. The LPy_1 curve represents the demand schedule of money at a level of income y_1 . It is downward sloping showing the negative correlation between the rate of interest and the demand for money. The rate of interest r is determined at the point K where the supply of money is exactly equal to the demand for money. Now, if the liquidity preference schedule rises to $L'P$ y_2 on account of an increase in income to y_2 , the rate of interest would rise from r to r' . Similarly, if the supply of money increases, the liquidity preference schedule remaining unaltered, the rate of interest would fall.

How does a change in the rate of interest affect the levels of income and employment?

¹ Keynes, *op cit*, p 201

The rate of interest affects the levels of income and employment through changes in the volume of investment. A fall in the rate of interest, for instance, raises the level of investment until the marginal efficiency of capital equals the reduced rate of interest. An increase in investment through the multiplier leads to a multiple increase in income and employment.

POINTS TO REMEMBER

1. According to the Keynesian liquidity preference theory of interest, the rate of interest is determined by the demand for idle balances in conjunction with the supply of money.
2. The demand for money can be for the transaction, precautionary and speculative motives. The first two are more or less stable and it is the speculative motive which is the real and ultimate determinant of the rate of interest.

SELECT READINGS

1. Keynes *General Theory*, Ch. 13.
2. Kurihara : *Introduction to Keynesian Dynamics*, Ch. 4.
3. Hansen : *Guide to Keynes*, Ch. 6.
4. Dillard : *Economics of J. M. Keynes*, Ch. 8, pp. 161-180.

Q. 22. Do you agree with Keynes' criticism of Classical Theory of Interest ? How far is his own reformulation an improvement upon the latter ?
(Gujarat 1959)

Do you agree with the view that the Keynesian theory of interest, like the classical, is indeterminate ? (Calcutta 1957)

Ans. In a nutshell, in the classical theory "interest" is a reward for "waiting" (or saving and abstaining from the present consumption) and the rate of interest like the price of a commodity is determined by the supply of and demand for capital.

On the demand side, the demand for capital depends upon the marginal productivity of capital which in turn depends upon the amount of investment, the amount of investment being determined at the point where the marginal productivity of capital is equal to the rate of interest. On the supply side, the supply of capital depends upon the rate of interest ; higher the rate of interest greater would be the propensity to save and thus, larger would be the supply of capital. In the classical theory the rate of interest is viewed as the "equilibrating mechanism" which equates the supply of and demand for savings. If at any time, the demand

for capital falls, the rate of interest is supposed to fall and lessen the supply of capital to correspond to the reduced demand for capital. If on the other hand savings increase more than investment the rate of interest is supposed to fall until savings and investment are equal again.

In the diagrammatic terminology S_1S_2 represents the supply function of savings, it is upward sloping showing that more is saved at a higher rate of interest and *vice versa*. I_1D_1 represents the demand curve of investment which is downward sloping showing that the demand for capital increases with a fall in the rate of interest and *vice versa*. The market rate of interest r_1 is determined at the point P_1 where I_1D_1 and S_1S_2 intersect. If the demand for capital falls as shown by the shift of I_1D_1 down ward to I_2D_2 the rate of interest would as shown fall from r_1 to r_2 .

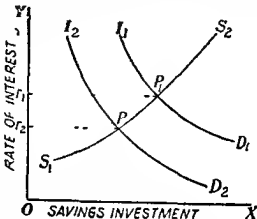


Fig 1

The first attack of Keynes on the classical theory is that interest is not a reward for saving as the classical school defines it for one can get interest for lending money which he has not saved himself but has inherited from his forefathers. On the other hand 'if a man hoards his savings in cash he earns no interest though he saves just as much as before'.¹ According to Keynes interest is not the reward for abstaining from consumption but for parting with liquidity.

The really damaging Keynesian criticism of the classical theory however is that in the classical scheme the rate of interest is in fact 'indeterminate'.² According to Keynes the investment schedule and the savings schedule are not independent as is supposed by the classical economists but are functionally inter dependent—and one cannot change without altering the other. In the diagram,

1 J M Keynes *General Theory of Employment Interest and Money* p 167

2 Keynes *op cit* pp 181 185

when investment schedule falls from I_1D_1 to I_2D_2 the income will fall and this would lead to a reduction of savings since as Keynes points out savings are a function not only of the rate of interest but also of the level of income. But the above diagram does not contain enough data to tell us by how much the savings would fall. Thus as we are not in a position to draw the savings schedule corresponding to the reduced investment schedule I_2D_2 , the rate of interest is indeterminate. The classicists committed this serious mistake by ruling out fluctuations in income and assuming instead a constant level of income corresponding to full employment.

The classical view that the rate of interest is the "equilibrating factor" between savings and investment (that increased savings by reducing the rate of interest lead to a corresponding increase in investment) has also been challenged by Keynes. As he has put it, "The rate of interest is not the price which brings into equilibrium the demand for investment resources with the readiness to abstain from present consumption. It is the price which equilibrates the desire to hold wealth in the form of cash with the available quantity of cash."¹

Indeed, Keynes does not deny the influence of the rate of interest upon savings and investment. He is prone to accept the view that an increase in the volume of savings will reduce the rate of interest and a reduced rate of interest will tend to increase investment. But as he rightly points out the effect is not so certain. The increased savings and the consequent fall in the rate of interest need not stimulate investment if the prospective yield on capital is depressed. Very often a diminution in the propensity to consume depresses the marginal efficiency of capital and thus has an adverse effect on investment. Keynes is also willing to accept the view that out of a given income more will be saved at a higher rate of interest than at lower rate. But as soon as changes in income are brought into the picture, savings seem to be interest-inelastic. A rise in the rate of interest will actually lead to decrease in the amount of savings. For when the rate of interest rises, investment falls and fall in investment causes a decline in income and out of a smaller income less will be saved. The fall in savings will be just equal to the fall in investment since the two were equal before income fell and must

1. Keynes, *op. cit.*, p. 167.

be equal after the fall in income. Thus, according to Keynes, it is the income and not the rate of interest which ensures the equilibrium of savings and investment. Hence the of quoted statement of Keynes "Savings and investment are determinates of the system, not the determinants"¹

Another serious flaw in the classical theory of interest is that the classicists took into consideration only the two functions, namely, unit of account and medium of exchange and completely ignored the function of money as a store of value or what Keynes calls "a link between the present and the future" This was quite natural for the classical economists who accepted Say's Law of Markets and were concerned with the long period static equilibrium

All these differences between the classical school and Keynes arise on account of the fact that while the classical theory is based upon the implicit assumption of full employment and a given level of income corresponding to it, Keynes makes room for changes in the levels of income and employment. As a writer has put it "The difference between the traditional theory of interest and Keynes' monetary theory of interest is a fundamental aspect of the difference between the economics of full employment and the economics of less than full employment"²

Keynes by rejecting the classical theory on the grounds noted above has advanced an alternative formulation of the theory of interest called the Liquidity Preference Theory of Interest. According to this theory, interest is the payment made for parting with liquidity or for not hoarding and is a purely monetary phenomenon. The rate of interest is determined in the market by the supply of money on the one hand and the demand for money or liquid cash on the other

Money in the form of liquid cash is demanded by people for many reasons. In the first place, people want to hold some money for carrying out day to day transactions. Keynes calls this the 'transaction demand' for money. Secondly, people also keep some surplus cash as a measure of precaution to meet unforeseen

1. Keynes, *op cit*, p. 183.

2. Dillard, *The Economics of J M. Keynes*

contingencies like unemployment, illness etc. Keynes describes this as the "precautionary demand" for money. Thirdly, there is the "speculative demand" for money—the people hold money "with the object of securing profit from knowing better than the market of what the future will bring forth."¹ The speculators borrow money when the rate of interest is low and lend money when the rate of interest rises or purchase bonds when the bond prices fall. This motive arises on account of the uncertainty regarding the future rate of interest. As Keynes has put it, "uncertainty as to future course of the rate of interest is the sole intelligible explanation of this type of liquidity preference."² The transaction demand and the precautionary demand for money depend primarily upon the level of income and only remotely upon the rate of interest. The speculative demand of money is, however, highly interest-elastic and Keynes attaches great significance to this as the determinant of the rate of interest.

If M_1 be the quantity of cash held by people for the transaction and precautionary purposes, y the level of income and L_1 the liquidity function corresponding to the transaction and precautionary demands for money, then we have,

$$M_1 = L_1(y)$$

If M_2 be the quantity of cash held for speculative purposes, r the rate of interest and L_2 the liquidity preference function relating to the speculative demand for money, then we have,

$$M_2 = L_2(r)$$

If M be the total quantity of money in circulation, then the composite liquidity function can be represented as

$$M = M_1 + M_2 = L_1(y) + L_2(r)$$

or,
$$M = L(r, y)$$

In Fig. 2, the quantity of money in circulation, i.e., the supply of money is represented by OM. This can be regarded as given and constant at any point of time as money cannot be created by the public and for this reason the supply of money curve QM is a vertical straight line showing that the quantity of money in circulation is absolutely inelastic in response to changes in the rate of

1. Keynes, *op. cit* p. 170.

2. *Ibid.*, p. 2.

interest LP_{y_1} represents the demand for money or "liquidity preference" of the public and is downward sloping showing that the demand for money increases with a fall in the rate of interest and *vice versa*. As the demand for money also depends upon the level of income a liquidity preference curve represents the demand for money corresponding to a given level of income.

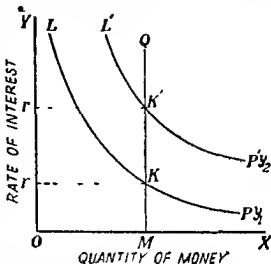


Fig 2

Given the level of income y_1 and the quantity of money in circulation OM, the rate of interest r is determined at the point K where the supply of money equals the demand for money. If the liquidity preference curve now rises to $L'P_{y_2}$ on account of a rise in the level of income to y_2 , the rate of interest rises to r' .

The Keynesian theory of interest is an improvement over the classical theory in that by introducing the dynamic concept of the role of money namely as "a link between the present and the future" and the consequent speculative demand for money, Keynes emphasises how uncertainty and expectations exert a significant influence on the levels of income and employment through the rate of interest.¹ The classical economists on the other hand by abstracting from the function of money as a 'store of wealth' represented interest as a non-monetary phenomenon.

But as Prof Hansen has aptly shown the Keynesian theory suffers from the same fundamental flaw as the classical theory. The Keynesian theory like the classical theory is also "indeterminate".² To understand this let us revert to Fig 2. In this figure according to Keynes when the liquidity preference curve rises to $L'P_{y_2}$ the rate of interest would also rise to r' . But as Hansen contends the change in the rate of interest cannot be independent of the level of

1 Kurihara, *Introduction to Keynesian Dynamics* p 72

2 Hansen *Guide to Keynes*, p 140

income. When the rate of interest rises, investment will fall off as the level of investment is dependent upon the rate of interest. A fall in the level of investment would bring down the level of income and a reduction in income implies a decline in liquidity preference so that the rate of interest would fall but we do not know by how much it would fall.

POINTS TO REMEMBER

1. The fundamental Keynesian criticism of the classical theory is that the savings function cannot change independently of the investment function. Since the classical theory does not provide for the change in income, it is indeterminate.
2. The Keynesian theory is also indeterminate because the liquidity preference function cannot change independently of the investment function.

SELECT READINGS

1. Keynes : *General Theory*, Ch. 14.
2. Hansen : *Guide to Keynes*, Ch. 7, pp. 140-141.
3. Dillard : *The Economics of Keynes*, Ch. 8 (pp. 164-180, 189-193).

Q. 23. To what extent is it correct to say that the rate of interest is a highly psychological phenomenon? Explain, in the light of your answer, why short term rates tend to fluctuate more than long term rates of interest. (Delhi 1959)

"In Keynesian theory the rate of interest is what it is because it is not expected to become other than what it is; if it is expected to become other than what it is, there is nothing left to tell us why it is, what it is." Discuss. (Bombay 1957)

Ans. According to Keynes, the rate of interest is "a highly psychological phenomenon"¹ and plays a significant role in the fluctuations of income and employment in a capitalist system.

Keynes' Liquidity Preference Theory of Interest states that the rate of interest is determined by the supply of money on the one hand and the demand for money on the other. As the supply of money is given at any point of time (it is determined by the banking system and cannot be created by the public) the rate of interest is determined by the liquidity preference or the preference of the public to hold wealth in the form of liquid cash to non-liquid assets like bonds, securities etc.

1. Keynes, *op. cit.*, p. 196.

What is the explanation of the phenomenon of liquidity preference? Why do people demand ready cash in preference to income yielding bonds, securities etc? Here Keynes gives us the three broad motives for holding money, namely, transaction motive, precautionary motive and speculative motive

The transaction motive refers to the desire to hold wealth in the form of liquid cash in order to carry on smoothly the day to day transactions or as Keynes has put it, "to bridge the interval between the receipt of income and its disbursement"¹ The precautionary motive refers to the desire to hold cash in order to be able to meet any unforeseen future contingencies like illness, unemployment etc, without any difficulty The speculative motive is by far the most significant one and Keynes regards this as the ultimate determinant of interest The speculative demand for money means the desire to hold money in order to make a capital gain It is possible for people to make capital gains by purchasing bonds when their prices are low (i.e., when the rate of interest is high) and selling them when their prices are high (i.e., when the rate of interest is low)

Now the transaction and the precautionary demands for money are mainly "a resultant of the general activity of the economic system and of the level of money income"¹ These demands are rather insensitive to changes in the rate of interest The speculative demand for money, however, belongs to an entirely separate category It is irresponsive to changes in the levels of income and employment and is highly interest elastic The changes in the levels of income and employment are, however, insignificant over a short period of time If there is a change in the rate of interest, the cause is to be sought in the speculative demand rather than in the transaction and precautionary demands for money That is why Keynes emphasises this as the ultimate determinant of the rate of interest

This speculative demand for money is a highly psychological factor The speculators hold money 'with the object of securing profit from knowing better than the market what the future will bring forth'² This is because of a special kind of uncertainty

1 Keynes *op cit*, p 199

2 *Ibid*, p 170

which surrounds the rate of interest. If the speculator expects the rate of interest to fall in future (or the bond price to rise) he will give up cash and purchase bonds instead. If the expectation materialises, i.e., if the rate of interest actually falls, he will be able to reap a capital gain. But no one knows for certain what the future rate of interest would actually be. It is this "uncertainty as to the future course of the rate of interest which is the sole intelligible explanation of this type of liquidity preference."¹

As nobody can be certain about the future rate of interest, everyone forms his own estimate on the basis of his individual expectations. The individuals who think that the current rate is above the "safe or the conventional" rate of interest and is likely to come down in future will purchase bonds in the hope of selling them at higher prices later. In the terminology of the stock exchange market, these individuals are called "bulls". On the other hand, those speculators who expect that the rate of interest will rise in future sell out securities and acquire liquid cash. These individuals are called "bears". The market strikes a balance between the two opposite categories of expectations. The balance of expectations about the future rate of interest influences the actual rate of interest. Thus there are complex psychological influences at work upon the rate of interest and that is why Keynes describes the rate of interest as "a highly psychological phenomenon." It is also clear why Prof. Robertson states that in the Keynesian theory "the rate of interest is what it is because it is not expected to become other than what it is, if it is expected to become other than what it is there is nothing left to tell us why it is, what it is"². In other words, in the ultimate analysis, the rate of interest is in fact determined by the expectations of the public regarding the future rate of interest.

In what sense can it be said that the rate of interest primarily depends upon the decisions about the form in which wealth is held? The answer is obvious. The speculative demand is nothing but the desire to hold wealth in the alternative forms of

1. Keynes, *op. cit.*, p. 201

2. D.H. Robertson, Mr. Keynes and the Rate of Interest in *Readings in the Theory of Income Distribution*.

wealth, e.g., liquid cash, bonds, securities, bills of exchange etc. If the rate of interest is high, the cost of liquidity is large and people would reduce their holdings of wealth in the form of money. If the rate of interest is low, the cost of liquidity is small and therefore, people shift from other forms of assets to money. These actions react upon the rate of interest through the demand for money function. Similarly if people expect the rate of interest to fall, they would give up liquid cash and purchase bonds. The rise in the demand for bonds would raise the bond price which would ultimately affect the rate of interest.

The short-term rate of interest is subject to greater fluctuations than the long-term rate of interest. This is because of the fact that over a short period, the speculative demand for money, as we have seen, changes very widely. But over a long period of time, expectations of contrary nature cancel themselves out leaving very little influence upon the rate of interest. That is why the long-term rate of interest is relatively stable.¹

POINTS TO REMEMBER

1. The rate of interest is "a highly psychological phenomenon" because the speculative demand of money which is the ultimate determinant of interest is a psychological factor.
2. The speculative demand determines in what form wealth is held, the rate of interest depends upon the decisions about the forms in which wealth is held.
3. As the speculative demand for money changes more violently in the short period, the short term rate of interest fluctuates to a greater extent than the long-term rate of interest.

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Q 24 What is the difference between the "loanable funds" theory and the "liquidity preference" theory of interest? Can you reconcile the two?

1. For details see answer to Question No. 14

Compare and contrast the "loanable funds" theory of interest and "liquidity preference" theory. Discuss the view of Hicks that the dispute between the upholders of the two theories is a "sham dispute".

Aus. The theory of interest like most other theories in economics has undergone an evolution and has been the subject of controversy, discussion and criticism. Broadly speaking, there are two alternative approaches to the theory of interest namely, *real* and *monetary*. The Waiting or Abstinence theory, the Agio or Austrian theory, the classical supply and demand theory are well-known instances of the real approach to the theory of interest. According to the monetary approach formulated by writers like Keynes, Lerner, Hansen and Somers, interest is a purely monetary phenomenon and it loses its distinctive characteristics in a non-monetary economy. In the monetary approach there are two alternative theories namely the Liquidity Preference Theory and the Loanable Funds Theory which, although of quite recent origin, have been the subject of a long and acute controversy. Referring to this, Hicks has observed in his *Value and Capital* that the controversy has been rather baseless—"a sham dispute". Although the two theories are apparently divergent, yet they are the same in substance.

Before giving a verdict as to whether the differences between the two theories are real or imaginary, and which of the two is preferable, it is essential to review the theories first.

The liquidity preference theory states that the rate of interest is the reward for parting with liquid purchasing power, viz, money. People want to have money for meeting day-to-day requirements (transactionary demand), for meeting the emergencies (precautionary demand) and for using it in the speculation of securities (speculative demand). The first two demands, obviously, depend very much upon the income and the standard of living of the people and are not very sensitive to change in interest rates, while the speculative demand for money really stems from variations in the rate of interest. For, with changing rate of interest, there arises a possibility of earning out of possible changes in the capital value of the assets. Thus investment is very sensitive to changes in the rate of interest and accordingly we can have a liquidity pre-

ference schedule showing the demand for money at different rates of interest and corresponding supply of money. Where the two schedules intersect, the rate of interest is determined for the time being. The supply of money, however, may or may not be influenced by the changes in the rate of interest as how much money to supply is the decision which the monetary authorities take.

But in the case of loanable funds theory, a single clear cut statement is not available. Whether loanable funds theory really amounts to the same thing as the liquidity preference theory or not, therefore, depends upon how we define loanable funds and in what context the whole thing is set. However, in a general way, we say that according to loanable funds theory the interest rate is determined by the supply of and demand for loanable funds. As Lerner puts it, we can have ordinary savings and investment schedules showing the values of the variables at different rates of interest and also the schedules showing "hoarding" and the supply of new money. Thus the supply of "credit" or funds available for lending would be shown by the savings of the people plus the additions to the money supply during that period, while the demand for loans would be the demand for investment plus the demand for hoarding money. Where the two combined schedules balance, the rate of interest is determined. It can be illustrated geometrically also as in Fig. 3.

S and I are the ordinary savings and investment schedules corresponding to different rates of interest. L is the curve showing the demand for hoardings at different rates (L curve is sloping downwards showing that at higher rate of interest hoarding would be less because it costs more to hoard) and M curve shows the additional supplies of money. Adding the curves S and M, and I and L, we get the interest rate P_1B .

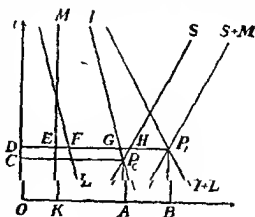


Fig. 3

Here L curve shows positive values for all the rates of interest and M is a vertical straight line; it would make no difference to the basic arguments if M changes its shape or L has also some negative values.

It may be seen that the hoarding is equal to savings—lendings plus borrowings minus investment. In symbols, hoarding = $S - l - b - I$. But savings = income Y —consumption C , so that hoarding = $y - c - l + b - I = (y + b) - (c + l + I)$. Thus hoarding is the net change in the amount of money held (because $Y + b$ = total receipts and $c + l + I$ = total money outlays) and since hoarding or dishoarding takes place only when there is a change in the rate of interest no hoarding (or dishoarding) will take place if the rate of interest remains constant for a sufficiently long period. Thus within the system envisaged by the loanable funds theory, while savings and investment depend upon the level of interest, "hoarding" depends upon the changes in the rate of interest.

In the liquidity preference theory we have seen that the speculative demand for money¹ depends essentially upon the expectations of changes in the rate of interest and now we have seen hoarding also depends, in a similar way, upon the changes in the rate of interest. If, therefore, the two theories are to say practically the same thing, the loanable funds theory should be converted into one in which savings and investment curves have nothing important to say. This attempt was made by Lerner. He says that since investment and savings are always equal, therefore, investment and the savings curves coincide and accordingly the rate of interest we get by the intersection of $S + M$ and $L + I$ curves will be the same as that obtained by the intersection of L and M curves. But such an approach has the defect of not taking into account the level of income. The loanable funds theory, even by recognising the equality of savings and investment, cannot be stated to have become identical with the liquidity preference theory because the loanable funds theory runs in terms of flow of additional money and the demand for hoarding which naturally should

1. Since in developed countries the stock of securities is very great as compared with the transactionary and precautionary demands for money, for all practical purposes, transactionary and precautionary demands for money, can be neglected while considering the demand of money.

(in addition to interest) be a function of the level of income also

Hicks tried to show that the liquidity preference and loanable funds theories are the same by making use of his general equilibrium analysis. Interest is determined, like all other prices, simultaneously with all the other unknown values in the economic system. The general equilibrium system is solved with the help of simultaneous equations and, therefore, in the system we can have one equation showing demand for and supply of money and another showing the demand for and supply of loanable funds. Mathematically, one equation follows from all the others put together and, therefore, if we eliminate the money equation, we get the loanable funds theory and if we eliminate the loanable funds equation, we get the liquidity preference theory. Thus to him it is only a 'sham dispute between the monetary theorists

Although there is hardly any ground for the dispute between the advocates of the liquidity preference theory and the loanable funds theory and both the theories ultimately lead to the same result there are definite grounds on which one theory is preferable to the other. The liquidity preference theory runs in terms of stocks, i.e., supply of money in the short run and its demand in the short run varying with the expectations of future interest rates. The loanable funds theory is essentially one of flows, i.e., so much supply of loanable funds and so much demand for loanable funds per period of time. Money theorists feel that the stock approach is better as far as the rate of interest goes. Well, on this account, it may not be so. But we can certainly show that the liquidity preference theory is preferable on certain other grounds. The liquidity preference theory draws our attention to the motives for the demand for money and the changes that take place there. Loanable funds theory is weak in this respect. Liquidity preference theory is a part of the general determinate system as put forth by Keynes, while the loanable funds theory has developed in the context of partial equilibrium analysis and can, therefore, be a square peg in a round hole in the general determinate system.

In the case of loanable funds theory, savings and investment schedules depend upon the level of interest rate and hoardings respond to changes in the interest rate. But since savings, and investment must always be equal whatever the rate of interest and

the level of income, the relationship between the savings and investment and interest rate becomes meaningless. It will be obvious from the attempt made by Lerner to reconcile the two theories. Since savings and investment are always equal, the same result regarding the rate of interest can be obtained from the L and M curves and it is, therefore, superfluous to talk of the role of savings and investment in the determination of the rate of interest. On the other hand, if we eliminate the savings and investment schedule from our consideration, we are faced with another difficulty. Suppose all the savings are lent out and all borrowings are invested and no investment takes place by any dishoarding, so that hoarding and dishoarding are both zero, then the loanable funds theory reduces to the statement that the rate of interest is determined by the demand for and supply of savings—the classical theory of interest—while we have seen above that savings and investment schedules can be left out while considering the determination of the rate of interest. In the liquidity preference theory, there is no trap, because here savings are supposed to be interest-inelastic and the funds for investment are governed by the money supply. Savings equate themselves to investment *via* changes in income, and the rate of interest gets ultimately determined by the supply of and demand for money. In the Keynesian system we have the liquidity preference, the marginal efficiency of capital, the marginal propensity to consume and the money supply as the ultimate determinants of the economic system and out of these the liquidity preference and the money supply determine the rate of interest. There is no ambiguity or contradiction involved and therefore, we can safely say that it is better to adhere to the Keynesian liquidity preference theory rather than be lost in the woods of loanable funds theory.

POINTS TO REMEMBER

1. There have been 'real' theories of interest and monetary theories of interest
2. The distinction between money and loanable funds.
3. While the liquidity preference theory has a single compact formulation, the loanable funds theory wavers because of differences in the definition of loanable funds.
4. Briefly, in the liquidity preference theory, supply of money is determined by the monetary authorities while the demand for money

comes from liquidity preference of the people which is due to the transactionary and speculative motives. The speculative motive is the most important of these and very sensitive to changes in the rate of interest.

- 5 The supply of loanable funds consists of the savings of the people plus the additions to money supply in a given period and the demand for loanable funds comes from the investors and those who want to hoard the funds. The combined curves of the two sides give us the rate of interest.
- 6 Lerner attempts to say that the two theories are the same by pointing out that since savings equal investment we can eliminate this constant quantity from the total supply and demand schedules of the loanable funds and still get the same result i.e. the result that intersection of L and M curves would give.
- 7 Hicks tries to resolve the dispute by making use of his general equilibrium analysis.
- 8 But Hicks fails to bring out the role of the rate of interest in the entire mechanism of the economy.
- 9 The loanable funds theory has the defect that since savings equal investment it is superfluous to include these in the demand for and supply of loans. But if we exclude them and if in actual practice demand for and supply of loans coincide with the savings and investment where does the theory stand?
- 10 The liquidity preference theory has no such trap because here the savings are income elastic and not interest-elastic and the interest determined by the liquidity preference and the money supply two of the four ultimate determinants viz. liquidity preference, money supply, marginal propensity to consume and marginal efficiency of capital.

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Q. 25 What are the main considerations which might reasonably be advanced as explanations of the relationship between short term and long term interest rates?

(London B.Sc. 1964)

Ans. The issue is to investigate what considerations could

possibly be advanced to explain the relationship between the short-term and the long-term rates of interest. The first step would be to define what is meant by short-term rates and long-term rates of interest. There is really no well defined period which could be regarded a 'short-period' and the same applies to the 'long-period' as well. Both of these concepts are rather loosely defined by certain banking convention. In accordance with the habitual mode of thinking in connection with the classification of periods, loans are put into three categories (a) short-term, (b) medium-term and (c) long-term.

Short-term loans might extend from 'call loans' which could be called back at any time to loans that mature after 3-6 months. Medium-loans may range over a period of 2-3 years and the long-term ones may extend over any period up to 20-25 years. The interest rates obviously vary in accordance with the periods of the loans, keeping all other things constant. What needs to be taken into account in this connection is the difference made by the time-factor and the relationship between the short-term and the long-term rates of interest. For instance, if the short-term rates rise, what happens to the long-term rates and why? If the short-term rates register a fall, what happens to the long-term rates and why? If the long term rates rise or fall what happens to the short-term rates and why? In what way are the two connected? This is the question to investigate.

It must be noted in this connection that there are several factors in the money-market which influence the structure of the rates of interest. Apart from the duration of the loans which is the only factor that we have to take into account, there are others such as risks, collateral offers, the goodwill of the borrower the purpose of borrowing, the risks associated with the investment proposed to be undertaken etc. All these other considerations must be taken to remain the same to isolate the impact of time and to investigate the relationship between the short-term and the long-term loans. If these other factors are themselves affected by the time-factor, they cease to be independent variables and hence, they too have to be taken into account in so far as they explain the relationship between the long-term and the short-term rates of interest.

Considerations of Liquidity The bankers have to show the greatest concern with liquidity. This is particularly so in the case of the commercial banks since the depositors can demand their deposits back at any time. The greater the proportion of demand deposits to total deposits, greater has to be the concern for liquidity and therefore, the greater the unwillingness to invest funds in long term loans. The extra ordinary concern for liquidity, which the commercial banks have to show when the demand deposits dominate, creates a scarcity of funds for long term lending. During a given short period of time, the sum total of loanable funds can be taken to be a sort of fixed stock and out of this fixed stock, the greater the proportion that is committed to short term loans the smaller would be the sum available for long term loans. The short term rates of interest would be low because of the plenty in supply whereas the long term rates would be high because of the general scarcity of funds. Thus the long term and the short term rates are brought into relationship with each other because of the fact that the funds for the two types of loans come from the same stock of savings.

Stock Exchanges The existence of stock exchanges reduces the illiquidity of the long term loans particularly when the loans are made in a wise way. The stocks and shares in which money is invested could be disposed off to realise cash when required. This is a factor which reduces the gulf between the short term and the long term rates of interest. But for stock exchanges the long term rates would, perhaps, have been much higher than the short term rates—much more than what they are today.

The lenders' earnings The lenders have to calculate the net earnings of a given sum of money in two alternative ways. When money is lent on a purely short term basis the total earnings would be the sum of the earnings for different small periods. The turn over would be higher. The credit supplied would perhaps, be greater. When the funds are committed on a long term basis, there would be a restraint on the supply of credit. The advantages of a high rate of interest would be off set by a better supply of credit so far as short term loans are concerned. Long term loans reduce the capacity to supply credit and hence, the earnings are reduced. That is how the concern for short term loans raises the long term rates.

Short-term loans and the demand for funds for stock-holding. There is a demand for short-term loans mainly on the part of traders. Traders who want to buy at a low price and sell at a high price have to borrow funds to invest in their stock-holdings. They have to compare the cost of stock-holdings as determined by the short-term rates, rent etc. of the godowns etc. with the profit to be made when the prices rise. When the short-term rates fall, there is a great inducement to borrow funds to invest in stock holdings. Commodities are purchased and stocked in a large measure. The prices rise because of the fall in the effective supply of commodities in the market. The opposite happens when the short-term rates increase. The stock holdings become costly, the traders are discouraged from borrowing funds, the supplies in the market increase, the prices decline. Thus the tone of the market is set by short-term rates of interest.

The tone of the market and the demand for long-term investible funds. It is well-known that the demand for investible funds is the outcome of the long-term expectations of the entrepreneurs. The expectations are primarily of a psychological nature. All the same, their principal basis seems to be the current trends in the market. If the current trends are optimistic, the entrepreneurs are enthused to borrow and to invest and on the contrary if the current trends are of a pessimistic nature, enthusiasm of the entrepreneurs is likely to be dampened. As the demand for long-term investment goes up because of the optimism of the entrepreneurs, the long-term rate of interest goes up and *vice versa*, all other things remaining equal. In so far as the demand for long-term investible funds is governed by the temperament of the entrepreneurs and in so far as that temperament is affected by the current trends in the market as in turn determined by the short-term rates of interest, there would be a connection between the short-term and the long-term rates of interest. The short-term rates set the tone of the market; the tone of the market affects the temperament of the entrepreneurs and this in turn affects the demand for long-term investible funds and hence arises the connection between the short-term and the long-term rates. A rise in the short-term rates would make holding of stocks rather costly, the prices of commodities would decline and, therefore, the short-term rise in the interest rates would bring down the long-term rates and *vice versa*. This

ably affected and the supply of productive resources is sufficiently elastic, employment would continue to increase until full employment has been reached. But there is a force which may pull employment in the reverse direction. If the fall in the rate of interest is very significant and is expected to continue for a sufficiently long time, the fall in the rate of interest and the consequent cheapening of capital may induce entrepreneurs to substitute the capital intensive techniques of production in place of the labour-intensive ones. This tendency will become especially prominent as full employment stage is reached and the money wages start rising. How significant this substitution effect would be or would be operative at all, of course, depends upon what the magnitude of interest-cost is in the total cost of production.

A cheap money policy affects the foreign trade of the country through its influence upon the price level. So long as there are unutilised resources and unemployed labour, a fall in the rate of interest would increase output and employment rather than prices. But as full employment stage is approached prices would rise sharply on account of diminishing returns and the increased bargaining strength of the workers.¹

A rise in prices would have a two fold influence on foreign trade. In the first place, on account of the rise in the cost of production, the exports of the country would fall off. Secondly, increased money incomes would raise the propensity to import and thus imports would increase. The net result would be an adverse balance of trade.

On the other hand, a fall in the rate of interest would discourage the inflow of foreign capital and the domestic capital would tend to flow out where it can obtain a relatively higher rate of interest.

POINTS TO REMEMBER

1. A cheap money policy affects the levels of real income, employment and foreign trade through the three independent functions namely—liquidity function, investment function and consumption function.
2. A cheap money policy would increase production so long as there are unutilised productive resources and unemployed labour.
3. If investment reacts favourably to the cheap money policy, employment would increase until full employment is reached.

1. Keynes, *General Theory*, p. 301.

4. A cheap money policy by raising the production costs of our exports would generate an adverse balance of trade.

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Q. 30. Discuss the techniques, objectives and limitations of deficit financing. (Karnatak 1960)

What is 'deficit financing'? Under what conditions and to what extent is it justifiable? (Allahabad 1959)

Are you in favour of resorting to deficit financing to promote economic development in India? What limit would you set to its size? (Karnatak 1958)

Ans. Deficit financing, which was once looked upon with great horror by the orthodox school of economists, has now made an entry into the discussions of the most respectable of learned circles. There are still some die-hard believers in the virtue of a balanced budget who question the wisdom of resorting to deficit financing as a means to promote the economic development of the country, in spite of the fact that deficit financing has already been employed to finance some of the development schemes under our First and Second Five-Year Plans. As against a planned provision of deficit financing in the First Plan of Rs. 290 crores, it actually came to Rs. 420 crores. By the end of the Second Plan, the extent of deficit financing was expected to be of the order of Rs. 1175 crores. The Third Plan envisaged deficit financing to the tune of Rs. 550 crores.

For purposes of application to our country, deficit financing is no longer a matter of mere theoretic or academic importance since deductive reasoning in the realm of theory has stood the test of practical consequences which have already been brought into existence as a result of deficit financing during the First, Second and the Third Plans. It is clear that the concept of deficit financing refers to expenditure over and above the receipts during a given period of time. Thus defined, deficit financing could be practised by the state as well as private persons who spend during a certain period more than the income of that period. The excess of revenues to

mitigate extra expenditure could be found either by drawing upon the balances of the past, or by expansion of bank credit or by the creation of paper currency when the state desires to practice deficit financing. Deficit financing refers to the financing of programmes of expenditure out of created money. The choice of a particular method of deficit financing would have its own peculiar economic consequences and in the context of a developing backward economy, the *modus operandi* of deficit financing would be as important as the magnitude of deficit financing.

The issues that come up in the context of a developing backward economy are mainly three—(i) is it desirable to resort to deficit financing in order to provide the most urgent sinews for growth? (ii) in case, it be regarded desirable, what is the safe extent to which deficit financing should be carried? (iii) what are the helpful and the harmful consequences of deficit financing in a country like ours and what are the ways and means which would help us in employing deficit financing without its usual evil consequences?

It is a fact which hardly needs any emphasis that a developing backward economy is badly in need of funds to invest in a variety of fields on a large scale so as to initiate the process of the 'take off'. The investment has to be big enough to give a severe jolt to the economy out of the vicious circle of underdevelopment. With extremely low *per capita* income, and low capacity to save, the masses of people are practically incapable of providing anything but a fraction of the revenues required for purposes of development. For them the question of tightening the belts to release funds for investment does not arise at all, in view of the sub normal subsistence levels of living to which they have been condemned for centuries together. There are, of course, great inequalities of wealth and income in our country and the urban as well as the rural gentry do indulge in a considerable amount of unnecessary consumption which does not have any economic function to fulfil. To the extent that the state makes bold to inflict a curtailment of such consumption by measures of taxation and propagation of the ideals of austerity, more and more of resources would be released for purposes of investment and correspondingly the need for deficit financing would automatically diminish. In the economic jargon a thrifty race of people habituated to a life of puritanic

austerity or to a high propensity, to save would have more of resources of investment. In order to achieve a given speed of development, a given quantum of investment has to be undertaken within the time limitations and the limitation of real physical resources. The planners, therefore, have to find the money from the blue, if necessary. The desirability or otherwise of deficit financing is to be judged keeping in view the urgency of economic development. If one could feel fairly certain that development could be effectively achieved with the help of deficit financing, one would feel inclined to approve of the maxim that the end justifies the means, especially when the means thus employed are not expected to have any evil consequences of material importance. If enough of savings could be induced and mobilised through normal channels such as taxation and borrowings, the need for deficit financing would not arise at all. Democratic governments do not have the necessary courage to inflict on the people unusually severe
 . lest the party in power be dislodged out of authority. Since the facts are what they are, we have to see the likely consequences of deficit financing and examine the possibilities of speeding up the growth of the economy out of created money.

In a purely technical sense, drawings upon the balances of the past and borrowings are termed a part of the scheme of deficit financing. If, however, the problem be viewed primarily from the economic angle, we see that past balances and current debts have in all likelihood created corresponding real savings—excepting the debts which are subscribed by the expansion of bank credits. For economic purposes, deficit financing should comprise of created money only—created either by the banks which expand credit or by the government by printing of legal tender currency. Money that is thus brought into existence has to perform its normal function of pursuing commodities, unless it be hoarded thus partially reducing the severity of the case. When deficit financing is undertaken, it is obviously meant for financing certain schemes of development such as the sinking of wells, construction of roads, creation of buildings for schools, hospitals and offices, buying of machinery for farm or factories within the country etc. In every case, we find that there is a time gap between the pumping in of money into the hands of the people and the fructification of the schemes of development. If the extra demand out of created

money he exactly matched by extra supply of the very goods which are demanded there need be no fear of inflation. As it is, supply usually lags behind demand in such a situation in general terms as well as in terms of the adjustment of the demand for and the supply of specific commodities. Normally, therefore, the immediate result of deficit financing is a rise in prices especially of those commodities which are purchased for development as well as those commodities which are purchased by the newly employed. The greater the time lag the greater the inflationary potential. Similarly, the greater the maladjustment between the demand for and supply of specific commodities the greater would be the rise in prices. For instance deficit financing could be resorted to for financing the production of cement and the newly employed workers might demand more of food. In course of time, the increased production of cement would not solve the problem of food shortage. This sort of situation was sought to be countered in our country through the liberalisation of imports of consumer goods in the course of the First Plan. Our sterling balances which made possible imports without exports of corresponding value contributed a good deal to the reduction of the inflationary potential. In spite of this facility, there did occur a rise in prices and inflation bids fair to continue unabated even today. Ever since the commencement of the First Plan, the rupee has depreciated by about 30%. Apart from deficit financing there are other causes as well which have been responsible for the rise in prices. It is, therefore, difficult to isolate the consequences of deficit financing alone because of the complexity of the situation. However it is fairly certain that deficit financing has been an important cause of the recent rise in prices.

Applied in a moderate way to specific selected schemes where the time lag between investment and fructification is the minimum deficit financing can bring about development without the dangers of an inflationary potential. A proper imports and exports policy capable of maintaining the prices of essential goods on even level, can also go a long way. The imposition of controls on certain commodities as part of an integrated scheme of development would also keep deficit financing within the limits of safety. What is the safe limit depends actually on how deficit financing is used and how it actually works in practice. In our country, it seems we have already crossed the limit of safe deficit financing in view

of the enormous rise in prices in recent times. It would be good to remember that deficit financing ought to be the medicine of the economy and not its daily bread.

POINTS TO REMEMBER

1. The problem of financing a deficit.
2. *Meaning of deficit financing*—all expenditure of a period over and above the income of the period—expenditure of borrowings from private individuals and borrowings from the banks or by printing of notes. In the economic sense only created money that is spent during a period should be called deficit financing. This includes two things—(a) expansion of currency, and (b) expansion of credit.
3. Likely results—time lag between investment and fructification of investment ; rise in price ; inflation because of too much of currency ; maladjustment between specific demand and specific supply.
4. Counteracting measures : Suitable import and export policy ; selection of quick yielding schemes ; imposition of classical controls etc.
5. Deficit financing should be the medicine and not the daily bread

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Q. 31. "Deficit financing can mobilise resources for economic development." Critically evaluate this statement
(Suggested Question)

Ans The expression deficit financing as understood in the western countries is the operation of meeting the excess of public expenditure over current revenue. But in India it has been the convention to use the term in the sense that the government meets its budget deficit through the sale of securities to the central bank or by drawing down its cash balances or by issuing fresh currency. This is the definition of deficit financing which was adopted by the Planning Commission in the First Five Year Plan. According to this definition the receipts from the sale of securities to the public are placed in the budget under "capital receipts" and are not shown as forming a part of the deficit. Thus, genuine savings are clearly distinguished from the deficit. This special connotation attached to deficit financing in our country springs from an anxiety to separate that part of the deficit which impinges directly upon the

aggregate money supply¹

Deficit financing is a concept of comparatively recent origin. The Classical economists who believed in Say's Law of Markets ruled out the necessity of resorting to deficit financing for the promotion of income and employment. As the economic system according to them was self-adjusting in character when given sufficient time and the free play of competitive forces a situation of unemployment would automatically correct itself through fall in wages.

The crisis of the 1930s however, dealt a severe blow to the Classical optimism. There was an unprecedented slump in the level of economic activity and the phenomenon of involuntary unemployment assumed large dimensions in the capitalist world.

J. M. Keynes came out with his *General Theory of Employment, Interest and Money* in which he advanced the thesis that unemployment of involuntary character is not due to wage rigidity but deficiency of effective demand and in order to increase the level of effective demand consumption or investment or both should be increased. This can be achieved effectively by having compensatory public expenditure and creating a budget deficit. An increment of deficit financing leads to a multiple increase in income through the multiplier process.

The Keynesian principle of deficit financing became immediately popular in America and England and even now deficit spending is used in America and the European countries as a major instrument of policy in times of unemployment and depression.

The use of deficit financing as an instrument of mobilising resources for economic development is of still more recent origin. The very fact that there is large volume of surplus labour in the underdeveloped economies indicates the role of deficit financing in generating income and productive capacity. Almost all the underdeveloped countries of the world which have in recent times resorted to planning for economic development have been using deficit financing as an instrument to finance planned economic development.

1 Dasgupta A. K. Deficit Financing and Inflation *Economic Weekly* Annual 1957

The case for deficit financing as a device to finance economic development in the underdeveloped countries rests upon the weakness of the weapons of taxation and public borrowing.

The efficacy of the weapon of taxation in an underdeveloped economy is severely restricted firstly on account of the existence of a vast non-monetised sector. Secondly, as the standard of living of the majority of population is extremely low, the imposition of a heavy rate of taxation is undesirable for both economic and political reasons. Thirdly, a heavy tax system tends to discourage the undertaking of risk and enterprise so scarce and so essential for economic growth in an underdeveloped country.

The usefulness of the method of public borrowing is likewise limited on account of the low capacity to save. Whatever savings are made are mostly hoarded in the form of idle cash balances, gold, ornaments and jewellery¹. The scope of borrowing is further narrowed down by the absence of a well-organised money market which is essential for the success of a borrowing scheme. Deficit financing, on the other hand, immediately makes available to the government enough of resources which can be utilised for productive investment.

The instrument of deficit financing has, however, certain serious limitations in an underdeveloped economy and, if carried too far, it can jeopardise the entire foundation of the economy.

The success of the weapon of deficit financing depends upon the smooth operation of the multiplier mechanism. The multiplier is based upon the fundamental assumptions that there is enough of excess capacity in the capital equipment and that there is involuntary unemployment which implies the scope for a cut in wages.² But in a typical underdeveloped country characterised as it is by scarcity of capital the excess capacity in capital equipment is limited, if not non-existent. This means that when the supply of money is increased through deficit financing, it immediately becomes disposable income and generates demand for goods, particularly consumption goods. But on account of the lack of

1. United Nations, *Measures of Economic Development of the Underdeveloped Countries*, p. 37.

2. Rao, V.K.R.V., *Investment, Income and the Multiplier in the Underdeveloped Economy*, *Indian Economic Journal*, February 1952.

excess capacity in capital equipment and scarcity of tools and implements, output cannot be immediately increased. The increased demand thus outstrips supply and generates inflationary pressure. The absence of involuntary unemployment reinforces the inflationary pressure. The type of unemployment which is characteristic of an underdeveloped country is "disguised unemployment" and not involuntary unemployment. Under conditions of involuntary unemployment, the labourers, being under a *money illusion*, are prepared to accept a cut in real wages consequent upon a rise in the prices of consumption goods. But in the underdeveloped country the level of real wages, even in the urban sector, not to talk of the rural sector, is about the minimum necessary for physical existence so that whenever the real wages fall on account of the rise in the prices of consumption goods, the money wages tend to be raised through strikes, demonstrations etc. The rise in wages raises the industrial costs and thus a vicious spiral of inflation begins.

Some economists have however, suggested in recent times the use of deficit financing for the deliberate generation of inflation. A mild degree of inflation can accelerate the pace of economic growth in an underdeveloped country by promoting capital formation. As the prices of consumable goods rise, the wages and salaries tend to lag behind on account of the natural inertia of the "contract incomes" to move in response to changing prices. The consequent fall in real wages increases profits which has a two fold effect on capital formation. In the first place, increase in profits has a stimulating effect upon the incentive to invest. Secondly, the share of profits increases relatively to that of wages and salaries which implies, in effect, a redistribution of income in favour of the class whose marginal propensity to save is higher than that of the wage and salary earning class which increases savings for investment.

POINTS TO REMEMBER

- 1 The term "deficit financing" implies, in the plain sense of the term, the financing of the deficit budget through the creation of new money.
- 2 The case for deficit financing in an underdeveloped economy lies in that tax revenue is relatively small and the scope for public borrowing is limited.
- 3 The theory of deficit financing has certain serious limitations in an underdeveloped economy. On account of the absence of excess

capacity in the capital equipment and the shortage of skilled labour, tools, and implements, deficit financing leads to an increase in price level rather than an increase in output or real income.

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3. Planning Commission : *Second, Third and Fourth Five-year Plans*.

Q 32. Work out a simple economic model so as to bring out the relationship between investment and the distribution of income. What would be the significance of a budget deficit in your model? (Delhi 1964)

Aus. The first task to be undertaken is the construction of a simple economic model to bring out the relationship between investment and the distribution of income and the second, to analyse the consequences of a budget deficit. Again, from the viewpoint of distribution of income, we have to make a start with certain assumptions about the sort of economy that we have in mind. Investment, that we desire to take into account may be being done either in a communistic or a capitalistic economy and if it is a capitalistic framework on the basis of which our analysis is to be done, investment may refer to investment in the public or the private sectors of the economy or to both, in certain proportions as in a mixed economy. If it is a communistic economy that we have in mind, the pattern of distribution of income may not exhibit any direct links with investment unless it be through the impact of investment on the size of the national income and hence, on the pattern of distribution. Again, there is the task of defining what investment we take into account since investment can refer to investment that is already done or to investment which takes place afresh at the margin, as a sort of addition to the economic structure that already exists. Unless we define clearly what sort of economy we have in mind and what investment we refer to, it would be difficult to analyse the relationship between investment and distribution. The simplest model would be that of a communist economy in which non-wage sources of income are virtually abolished and hence, the pattern of distribution is determined mainly by two forces—(a) wage differences, and (b) the division of

the national income as between consumption and investible savings. A third factor to be considered is the nature of investment whose consequences are proposed to be examined.

It is well known that the time taken by investment projects to come to fruition depends on the type of projects that are undertaken. If most of the investment is done in heavy industries like rail lines, iron and steel, locomotive manufacturing, construction of major harbours, building up of national highways etc., a lot of time will have to pass before these projects go into production. In the early stages, real national income will not rise excepting by way of a little extra supplies of consumers' goods in response to the increasing demand generated by the new streams of wage income resulting from additional employment opportunities. This would be true on the assumption investment clears away a bit of pre-existing unemployment. If no unemployment is there to clear as when additional investment takes place when the economy is already working at the level of full employment, additional investment may not create additional employment. There would only be reshuffling of the distribution of labour force as between different industries. If investment is being done mainly for capital construction as usually happens in the early stages of economic growth during the period of a preparation for the take-off, the net addition to the real income of the economy would be smaller than the addition made to capital equipment. In a communist economy in which large scale investment is being done for capital construction in the early stages of growth, the income generated is likely to be spread over a large size of the labour force since more of them would be working and there would be no corresponding increase in the national income. For some years every one will have to suffer a smaller real income. Distribution becomes fairer and hence the higher wage earners also suffer a cut in their income. Everyone has to make a sacrifice for development and the distribution of the burden of sacrifice in society depends on the wage differences that are allowed to exist. The burden of sacrifice falls mainly on the unskilled workers and the non-communist workers if any who are deliberately made to suffer. This, however, is only a short-term phenomenon. In course of time when enough of capital accumulates and the production processes become more and more capital intensive, there would be a remarkable increase in

the productivity of labour, the size of the national income would increase, the supply of all sorts of commodities would increase and every one would receive a greater share of the national income. A general rise in real wages even in a communist society would not be feasible unless there is a big improvement in the national income. One can be fairly certain that over a long period of time continued investment in a communist society is almost sure to bring about a better distribution of income. The problems of a capitalist society arising out of private ownership of the means of production and private enterprise just do not exist in a communist society. The problem of distribution there is the problem of narrowing wage differences.

In a free economy, however, the problem is rather complicated. The impact of investment on distribution is not so simple. All the factors are free to seek the best of reward under the conditions of a free economy. Factor rewards are determined by their relative scarcity in the market in relation to their demand. The highest reward goes to those factor or factors that are most inelastic in supply and are most demanded in the market. To understand the impact of investment on the distribution of income, it is essential to analyse the impact of investment on the relative demand for different factors of production in the given conditions of their supply. The demand created by investment gets divided as between factors in different proportions on the basis of the techniques employed. Demand for certain factors may shoot up all of a sudden because of the increase in investment and if the supply of the factor concerned is not elastic enough to meet the demand, the prices would increase. The sudden spurt in demand brought about by investment creates a sort of rental income to the scarce factors over and above their normal earnings. In the underdeveloped countries like India, investment on a large scale immediately creates a demand for land, capital, finance, electricity, transportation etc., and it is known that all these services are rather scarce in supply. Excepting for unskilled labour all other things are scarce in supply and hence, the prices of non-labour factors increase immediately in response to the increase in demand. Consequently, investment exerts an upward pressure on rent, interest and profit whereas wages lag behind. The lag of wages is inevitable because of the almost inexhaustible supply of labour

in the labour market. The increase in the demand for labour does not cause a rise in the wage-level as there is no scarcity of labour in the market. The distribution of income is thus heavily tilted in favour of the rentier classes including the skilled workers like engineers and other technicians. Investment results in a further aggravation of inequalities in the early stages of development because of the persistent stagnation of wages as against a possible increase in the reward for other factors of production. Investment hits adversely particularly the old permanent employees who would have continued in permanent employment in any case and would have had the benefit of higher real wages but for the inflationary pressure in the economy. The benefit of investment accrues to the working class as a whole by way of a reduction in the total volume of unemployment because of the great increase in employment opportunities caused by investments. This is particularly so, when the techniques employed are labour intensive in character. The individual worker suffers but the working class as a whole gains when there is a large scale investment in any backward economy in the early stages of growth. The suffering of the individual workers is expected to be temporary. In course of time, as the economy moves on to higher stages of development the inelasticity in the supply of wage goods tends to disappear wage goods become cheaper and the real wages of the workers increase. The impact of investment on the distribution of income could be analysed on a long term as well as short term basis. In the short run, the very fact of investment tells the story of a big curtailment of consumption in order to release resources in favour of investment and this curtailment of consumption invariably falls on the working classes regardless of whether it is capitalistic or a communistic society. It is the capitalists that tyrannise over the workers in a capitalist society whereas it is the communist party bosses that oppress over the workers in a communist society. In any case, there is no justice in distribution in the process of investment. Investment, however, results in the creation of capital which in turn increases the productivity of labour. Real wages of the workers as a whole can remain at a high level only if the productivity of labour is so high that the economy can afford to pay high wages.

Marx contended that in a capitalist society continued invest

ment leads only to the enrichment of the capitalist classes and it would never be of any benefit to the workers. Continued investment brings about accumulation of capital and as more and more of equipment is drawn into production, the workers become increasingly superfluous. Unemployment increases. With the increase in unemployment, the bargaining strength of the workers suffers a setback. The wage rates decline. This is the Marxist theory of increasing accumulation of capital in the hands of an ever decreasing minority. The gulf between the capitalists and the workers keeps on increasing as a result of a continuous exploitation of workers. Investment becomes the instrument to exploit the workers more and more as time passes. Inequalities keep on increasing. The workers of the past who congeal their labour in the form of investment displace the workers of the future. This is the capitalist machination of setting the workers against the workers.

The theory is not supported by any empirical evidence. The experience of countries in which a good deal of investment has taken place over the last two hundred years goes to show that the impact of investment on the distribution of income when a sufficient time is allowed to pass, is good for all the classes. The workers too share the benefits of a prosperous economy as in the U.S.A. The greater the investment, the better are the chances for all.

This impact of deficit financing on the distribution of income is to be seen through the effect of deficit financing on prices. It is widely accepted that deficit financing must lead to the generation of inflationary pressures in the economy. Inflation hits hard particularly those groups in society that are faced with stagnant incomes in the face of rising prices. Inflation invariably aggravates inequalities in the distribution of income. Over a long period, however, increased investment is likely to benefit the whole society.

POINTS TO REMEMBER

1. The issue is to explore the relationship between investment and the distribution of income, particularly if investment is done through deficit financing.
2. Much depends on the sort of the economy that we take into account. It may be a capitalistic or a communistic economy and in a capitalistic economy, investment may be done either in the private or the public sector.
3. In a communist economy, investment in the early stages affects adversely the general mass of workers since they are required to

curtail their consumption in favour of investment over a certain period of time. More of investment leads to better production and benefits all.

- 4 In a free economy, the benefit of investment accrues in the first instance to the scarce factors like land, capital and enterprise and not to the workers.
- 5 The workers suffer because wages lag behind the prices. The prevalence of unemployment on a large scale comes in the way of general rise in wages.
6. The Marxists hold that investment leads to capital accumulation which in turn leads to displacement of labour. Investment benefit only the capitalists. The workers grow poorer.
- 7 Marxist theory is not supported by facts. In course of time, the benefit of investment accrues to all.

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- 2 Chelliah R. J. *Taxation and Public Investment* (Indian Finance Annual, 1961).
3. Black, J. *Investment Criteria under Capitalism and Socialism* (Oxford Economic Papers, June 1962)
- 4 Dossor, D G M. General Investment Criteria for Less developed Countries. A Post-mortem—*Scottish Journal of Political Economy*, June, 1962.

Q 33 Does deficit financing inevitably lead to inflation in a developing economy? (Venkateswara 1960)

Discuss the technique, objectives and limitations of deficit financing (Karnatak 1960)

Examine the proposition that the government deficit gives a more or less accurate measure of the inflationary impact of fiscal operations (Bombay 1960)

Do you think deficit financing under the Second Five Year plan has resulted in an inflationary situation in India? Briefly outline a policy of financing economic development without inflation (Gujarat 1960)

"Deficit financing is inflationary" How far is this borne out by recent experience in India? (Madras 1959)

Discuss critically how far the methods of financing the last war were responsible for the post war rise in prices in India (Calcutta 1958)

Ans Deficit financing alludes to the financing of govern-

mental schemes of expenditure out of created money, because the size of expenditure for a given period is not fully covered by the total amount of revenue received. The government might draw upon the past savings or borrow from the central bank and in either case the excess of expenditure over receipts is called deficit financing. In times of emergency like a war or in the context of urgent development schemes which the government hopes to fulfil on a war-footing, the public authorities might decide to use their currency-powers to create legal tender for financing a plan of expenditure. This is termed deficit financing.

Deficit financing was largely resorted to finance the last war and is currently being employed in our country to finance the Five Year Plans. During the Second World War, India was involved on behalf of Britain and the then British Government in India, which was financing war supplies purchased on behalf of Britain and her allies. The question, however, was how to find the necessary resources to finance purchases on an enormously large scale. In fact, the payment was to be made by the Government of Britain and not by the Government of India. The British Government, however, was paying sterling to the credit of India in the Bank of England and that is how there accumulated what is known as sterling balances. The Government of India issued currency on a large scale against the security of sterling balances and used this money for financing the requirement of the troops stationed in India. The value of notes in circulation in the year 1938-39 was Rs. 182 crores, and at the close of the war, i.e., in the year 1945-46, it shot up to Rs. 1163 crores. Credit expansion for the same period rose from Rs. 116 crores in 1938-39 to Rs. 301 crores in 1945-46. During the period of war, prices kept on rising and between the beginning and the close of the war the general index of prices rose by nearly 150%. (Base 1939=100, 1945-46=245.)

Because of the concomitant variation in the volume and value of currency and credit, and the general level of prices, both in the same direction, the rise in prices is ascribed to deficit financing due to the causal relationship between the two and it is held that deficit financing leads to the generation of inflationary pressures in the economy. It is true that a great part of the rise in prices is directly ascribable to the consequences of deficit financing

—too much of money pursuing too few of goods bringing about a rise in the prices of commodities or a fall in the value of money. The war time rise in prices could not, however, he said to have been caused solely due to deficit financing. There are other circumstances contingent to a war which may be responsible to a considerable extent for the rise in prices. Even when the volume and value of currency remains the same, there might be felt a relative scarcity of goods when demand rises because of the activation of idle resources. During a war period when there is a large scale diversion of men and material from civilian productive purposes to the prosecution of a war there is a natural fall in supplies and demand rises much faster than the supplies do—in fact, demand rising and supply falling, there is a strong tendency for the prices to rise because of forces operating on both the sides. War disrupts international trade and when foreign supplies of capital and consumption goods are cut off as during the Second War the tendency for the prices to rise is reinforced further. Even the supplies from indigenous industries cannot be continued as on the pre war basis because of a shortage of raw material and capital equipment. War gives rise to immense speculation and hoarding and disrupts the system of transportation in the country leading to a maldistribution of goods in space and time and hence causing a steep rise in prices. The spirit of profiteering rules supreme and every manufacturer and trader looks forward to amassing a huge fortune out of war, before it is too late! There might be a crash and a debacle when the war comes to a close. Therefore, everyone must make hay while the sun shines. The government tried to hold prices in check by imposing controls on the essential commodities. The market forces of demand and supply exploded the legal barriers, resulting in the coming into existence of thriving black markets.

We see, therefore, that the rise in prices in the post war years was due, to some extent, to deficit financing during the war though this was by no means unimportant. The other causes were as important as deficit financing. The war time rise in prices was carried forward because of unsatisfied pent up demand during the war time and because of other post war developments which carried the war generated tendencies still further.

The end of the war in August 1945 did not bring about an

end of inflationary conditions. Far from it, the general index of prices continued to rise. Taking the base year 1939 as 100, the general index stood at 275 in 1946-47, 308 in 1947-48, 376 in 1948-49, 410 in 1950-51 and reached the peak of 435 in 1951-52 because of the outbreak of the Korean war in June 1950. The Indian currency was devalued in 1949. The Korean war which induced stock-piling in many countries played a very important role in bringing about a rise in prices in the post-war years. With the end of the Korean war, relaxation of import controls and raising of the bank rate etc., brought down the index from 462 in April 1951 to 397 in March 1952.

The post-Korean war rise in prices in our country has not been of a serious order. On the whole the rise in prices between 1952 and 1955 was less than 5%. But because of the development investment of the First Plan, the general index again rose to 414 in the year 1956-57. A fall in production due to natural calamities, the economic consequences of partition and the growing adversity of the balance of trade, all combined in forcing a rise in prices, because of a fall in indigenous supplies and the need for cutting down of imports. As against a planned deficit of Rs. 299 crores during the First Five-Year Plan the actual deficit had been of the order of Rs. 420 crores. By the end of the Second Plan, the deficit in the government budget was expected to be of the order of Rs. 1290 crores. The expansion in the volume and value of currency and credit is continuing unabated and hence, there should be nothing surprising if the prices continue to keep on rising.

Deficit financing for development purposes need not, in fact, be as inflationary as deficit financing to wage a war, particularly when deficit financing is employed to finance quick-yielding schemes of development. What actually brings about a rise in prices is the running of demand much ahead of the supplies, because of the time-lag between investment and its fructification. The tendencies for the prices to rise can be held effectively in check by reducing the gestation period. Financing the development of small handicrafts and consumers' goods industries or financing the development of agriculture by way of distribution of better seeds, implements and fertilisers or small irrigation works etc., would, in all probability, not add to the inflationary pressures. In cases such as these, the supply of commodities is likely to follow

close on the heels of the creation of demand, because of more money in the hands of the people. There is, however, the possibility of a discrepancy between the type of demand and the type of supplies, resulting in the rise of prices of particular commodities.

On the basis of the experience of many an economy, wisdom would demand application of methods of deficit financing with all caution and with certain limitations as required by the specific circumstances of a given economy. Deficit financing would be justified only under unavoidable circumstances and only when the advantages to be derived from deficit financing far outweigh the disadvantages. During a period of war, for instance, deficit financing becomes inevitable due to the exigencies of a national calamity and, therefore despite the serious disturbances caused to the economy by too much of money, the nation has to resort to deficit financing. Deficit financing has to be justified from the angle of maximum social advantage. It is now recognised that the use of deficit financing as an instrument to promote the economic development of a country is far more justified than the financing of a war because the anti social consequences of deficit financing can be undone in a short time, when the fruits of development start flowing in the market. Moreover, controlled deficit financing could be applied only to selected schemes which are expected to fructify within the shortest possible time. A vigilant government can also control the imports and exports, the supply of basic commodities in the internal markets, the prices of wage goods, etc., as to minimise the anti social consequences of deficit financing. It is however only a medicine and not the daily bread.

POINTS TO REMEMBER

1. Definition of deficit financing—usually it refers to the financing of excess of expenditure over current receipts of the government through created money.
2. Credit-expansion for financing purposes is also partly deficit financing in the private sector.
3. The exigencies of a war and the need for revenues, accumulation of sterling balances and the expansion of Indian currency on its basis.
4. The variation in the general index of price during the war.
5. Deficit financing and other war time circumstances, responsible for a rise in prices.
6. The post-war rise in prices due to pent up demand, partition of

the country, the Korean war, natural calamities etc.

7. Deficit financing during the First and the Second Plans.

8. Conclusion : Selected and limited deficit financing alone is available.

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2. Lakdawala, D.T. : *Taxation and the Plan*, Ch. 1.

Q. 34. Discuss the character and phases of inflation in an economy which is experiencing rapid economic growth.

(Calcutta 1961)

Ans. An economy which is experiencing rapid economic growth is generally accompanied by inflationary pressures due to certain unavoidable reasons. Inflation is a situation of an economy in which the rise in the money-income of individuals runs much faster than the rise in the net national output resulting in the generation of a visible excess of demand for goods and services against the available supplies at the market prices of the commodities concerned. The excess of demand over supply exerts a pressure on the prices which keep on rising because of the disequilibrium between the demand for and the supply of commodities. It is needless to point out that the prices can behave the way they do only if there is a free market in which the buyers and sellers are under no restriction, either legal or otherwise, to express their preferences as freely as possible. The existence of inflation is itself a manifestation of the free market forces that move in the direction of bringing demand and supply in state of equilibrium. If this be the nature of inflation, it naturally follows that in a rapidly growing economy demand for goods and services has a strong tendency to run ahead of the possible supplies at the rate at which demand is rising. Income elasticity of demand is much too great in comparison with the price-elasticity of supplies due to certain hurdles in the path of improvement of supplies. The issue to examine, therefore, is, what is the explanation for the excess of demand over supplies in the early stages of the growth of an economy. Growth of demand being an outcome of the grown money incomes ahead of the growth of real income it follows that in a rapidly growing economy, the money incomes of the individuals have a strong tendency to outpace the growth of the real income. The precise issue that, therefore, emerges is

why money incomes evince a strong tendency to move ahead of the real income of the community in a rapidly growing economy

The reasons for the rise of money incomes of individuals in excess of the possible increases in the output of goods and services are not far to seek in the context of rapid economic development in a free economy. Economic development takes the form of a growing volume of investment year after year and the greater the rapidity of growth, the greater would be the volume of investment since growth is the outcome of investment. Investment in the conditions of a growing backward economy is generally done with the object of capital creation in the sense that investment is undertaken in the first instance to produce the means of production. Investment has to be done to construct buildings, roads, dams, canals, wells to buy machinery and essential raw materials from the more advanced economies and to create the necessary fundamental means of production. Investment is nothing but spending huge sums to buy the necessary factors of production for capital construction. In a growing economy the factor incomes are bound to record a rapid rise because of the growing demand for the factors of production which go into investment.

A rise in the factor incomes is the same thing as a rise in the income of the landlords, wage earners, financiers and the businessmen. So the result of a rise in the incomes of the various factors of production is a rise in the demand for goods and services since the income earners would like to spend a part of their income on consumable goods and services. This is particularly true of the wage earners. In a rapidly growing economy, the demand for labour for all sorts of jobs is bound to record a rise. As an economy reaches the higher stage of growth the process of growth should generally be accompanied by a reduction in unemployment. Even if this does not happen in practice due to the rapidity in the increase of the labour force in the economy, the volume of employment in a rapidly growing economy is bound to record a tremendous increase. Under employment and unemployment in disguise would also decline. More and more of purchasing power comes to be acquired by the wage earners along with the other groups in society.

A rise in the purchasing power of the wage earners as a whole is accompanied by a rise in the demand for wage goods whereas a

rise in the income of the already better off people in the economy is accompanied by a rise in demand for comforts and luxuries. There is a sudden spurt in demand on account of a rapid rise in the purchasing power of the people. Supplies are not elastic enough to meet the sudden rise in demand. There are *bottlenecks* to cross to improve the supplies. Sometimes the hurdles are too many and, therefore, in spite of the great rise in demand, supplies fail to keep pace. The result is nothing but a rise in prices due to the extensive pull of demand. All prices rise in sympathy resulting in a general inflationary situation.

Investment which lies at the root of the genesis of the phenomenon of inflation in a rapidly growing economy is also the source of anti-inflationary forces since investment by definition is meant for producing the means of production. The means of production that come into existence because of investment would further go into production to produce goods and services either by way of an increased output of further means of production or by way of increased output of consumption goods. The lag between investment and the coming into production of investment done is as the gestation period. The time lag depends on the nature of investment. Generally, the smaller a certain investment project, the shorter would be the time-lag between investment and fruition of investment and the bigger the investment scheme the longer is likely to be the time required to bring the investment to completion. Investment cannot go into production unless it is brought to a state of completion. The sooner the completion of the investment-projects the faster would be the increase in real output and *vice versa*. If inflation of a serious type is to be avoided the investment projects have to be completed as rapidly as possible so that the output of goods and services whose demand records a rise is made to grow as rapidly as possible to meet the rise in demand.

In a rapidly growing economy, the demand for necessities is likely to be of great importance. In the early stages of growth in a backward economy even the basic necessities like food, clothing and housing of the majority of the people are not likely to have been satisfied. A major part of the income of the bulk of the people is likely to be spent on agricultural commodities and as money-income records a rapid rise, the demand for agricultural

commodities is likely to increase in the first phase of development. As the economy moves on to higher stages of development the demand for industrial commodities also would rise with the satisfaction of the basic necessities. Agricultural production does not, however, rise as fast as industrial production and, therefore, in the first phase of development the prices of agricultural commodities are likely to rise rather rapidly. Industrial commodities would also be in short supply in the early stages, though as development gains momentum, the supply of industrial commodities shows a goods elasticity.

Inflation cannot, however, be a lasting phenomenon in a rapidly growing economy. The very rapidity of growth would bring into existence additional production capacity and as the economy moves on to higher stages of growth the supply of goods and services is bound to increase with an increase in the supply of goods and services. The prices cannot keep on rising indefinitely. Industrial production records a rapid rise and with the growth of industries, agriculture also gets modernised. Agricultural output also increases.

As the economy advances further the capacity to save increases. The need for deficit financing which is so great in the early stages of growth disappears and hence, there is no further intensification of the inflationary pressures. In the early stages of growth on which a good deal of deficit financing is usually practised, money incomes rise very fast whereas at later advanced stages, real incomes rise faster counteracting inflationary pressures in the economy. Some inflation seems unavoidable if rapid economic development is to be achieved, especially when there is a huge private sector in the economy. Development itself is the remedy to inflation.

POINTS TO REMEMBER

- 1 Inflation is quite common to economies which experience rapid economic development.
- 2 Inflation is that situation of an economy in which the stream of money incomes of individuals swelled faster than the stream of real income.
- 3 The consequence is a rise in demand far in excess of the possible increase in the supply of goods and services.
- 4 In a rapidly growing economy, the stream of money incomes swells very fast because of large scale investment specially when it is done through deficit financing.

5. Investments take some time to come to completion. Supplies do not increase immediately. The greater the time the greater is inflation.
6. Development itself is the remedy for inflation.

Q. 35. Compare the problems of Developmental Finance with those of War Finance. How far is it possible to use the methods of raising large sums for fighting a war to finance economic development ? (Bombay 1957)

Ans. It is often said that economic development which necessitates mobilisation and investment of enormous sums is a phenomenon which well stands in comparison with the feverish preparation for a war and the lightning quickness with which executive decisions are made by the generals in charge of fighting the enemies. For our purpose, the point at issue is a comparison between the ways and means of financing a war and the methods of financing large scale economic development. It is clear *per se* that both the situations make a heavy demand on men and resources on a scale unprecedented excepting in a comparable situation in the past. There has to be a deflection of labour and capital from their normal employment to satisfy civilian needs to the production of war material in the case of a war and to the fulfilment of development targets when a country is planning for large-scale economic development. Short of conscription and commandeering of resources the state has to pay the ruling market price for all the purchases of labour and equipment. There is consequently an enormous increase in the budgets of the government. The first point of comparison between war finance and development finance is the enormous increase in the expenditure of the community as a whole, be it on governmental account or on private account. War is solely a responsibility of the state and hence the increase in expenditure characterising the preparation for and the execution of a war is almost wholly on governmental account excepting for the multiplier effect arising out of additional employment and incomes. Development expenditure need not, however, be solely on governmental account. Far from it, a major part of expenditure for development is likely to be in the private sector under a democratic plan of development. Presuming that the government is required to initiate and sustain the process of economic development entirely on its own account

because of the lack of adequate private enterprise, the comparison between war finance and development finance would come closer still. Where the state is wholly or mainly responsible either for a war or for development, the question that naturally comes to our mind is why should the same agency be not equally good or bad for a given purpose? If the government can successfully finance the measures for a war, why not successfully the measures of economic development? The relevant questions that come to our mind in this connection are, what are the normal means and methods of financing a war and to what extent are these methods plausible of employment for financing the schemes of economic development? If the two situations be totally identical, every conceivable measure of financing a war could equally be used for financing the schemes of development. In case the two situations differ in regard to certain aspects, there would be a difference in the means and methods of financing.

It is a well known fact that war imposes additional burdens of taxation on the belligerent countries and their allies. The burden of taxation is not only pushed to the limits of taxable capacity but sometimes people are forced to cut down their normal consumption in order to release resources for financing the war. It can be argued by analogy, that the same measures could be resorted to even for purpose of financing development planning. Resources have to be released for consumption in favour of investment. There is actually no reason why people should not be prepared to bear the burden of extra taxes in order to provide the sinews for development. In fact the same compulsion could be applied as in a war. There is likely, however, to be a basic difference in the approach to a war as distinguished from the approach to the process of economic development. The heat, tension and excitement generated by a war along with the patriotic fervour when the country's honour is at stake would generate a passionate sense of responsibility in every individual citizen and rouse him to sacrifice everything including his life in order to win the war. We could expect, therefore, a great readiness on the part of the community to accept voluntarily the burden of additional taxation to finance the war. If the same passion could be roused about economic development, perhaps, people would not mind bearing additional burden of taxation. It is doubtful, however, whether

a war psychosis could be roused about schemes of development, especially in the conditions of an under-developed country where people are used to poverty for ages together and hence, do not react to the schemes of development with the expected fermentation or feelings. Additional taxes in fact provoke reactions unhelpful to development.¹ We see, therefore, that the comparison between war finance and development finance is useful within certain limitations. Whereas a war is expected to continue for a short period and the whole community is prepared psychologically for all possible exigencies, economic development is likely to be a prolonged affair spread over decades. One can have a full sight of the warmth of victory in a war but the fruits of development may not accrue immediately to the community as a whole. Development by its very nature starts in strategic sectors and then gradually spreads to the economy as a whole. The first to benefit by development are those who find additional employment and new markets and these would be only a small part of the whole community. The preparedness to bear the burden of extra taxes is hence not likely to be universal, with the myopic vision of men in general.

Government resort to borrowing both from within and without in order to finance a war. Borrowing is unavoidable even for financing schemes of development. Governments do float loans both in the country and abroad in order to raise resources for development. A programme of borrowing for financing development is likely to be more successful than a programme for financing a war. It is realised that war-loans are a deadweight on the community and a war devastated economy with its totally broken machinery of production might not be able to provide the government with the necessary means for repayment of debts and interest thereon. Unscrupulous debtors might even repudiate war-loans and some theoreticians might put the seal of approval on the repudiation of war debts. Debts which are contracted in order to finance schemes of development do not stand in any jeopardy of the

1. The reaction of the peasants of Punjab to betterment levy is an instance of this type. In spite of their receipt of a definite benefit by way of water for irrigation, the peasants do not desire to bear the cost. Who is to bear the burden of financing schemes of development, if the actual beneficiaries refuse to bear additional taxes?

sort Debts create assets which yield a regular income out of the proceeds of which payment of interest and repayment of principal could easily be made Raising debt resources for financing schemes of development appears to be easier than for financing a war unless passion about a war works miracle to the contrary The Government may have some hesitation in raising money by loans to finance a war in view of the burden of repayment but no such apprehensions need be there in the case of a plan of economic development The loans pay their own way if they be properly utilised for productive purposes There is likely to be greater readiness on the part of external agencies to provide loans for financing schemes of development rather than financing a war This however would be falsified in the case of rival political ideologies the allies of which are likely to receive all possible aid including large scale gifts because of political reasons On purely economic considerations war debts should be unpopular whereas development loans ought to be popular

▲ The next comparison between war finance and developmental finance is the recourse to deficit financing in either of the cases It is now a matter of common understanding that government do add to currency circulation out of created money in order to finance a war For financing selected schemes of development which would fructify within the shortest time deficit financing is advocated Deficit financing to pay for a war is bound to generate high inflationary pressures which cannot be counteracted by increased supply of commodities but for purposes of development it is possible to devise countervailing safety valves in order to reduce the severity of too much of money pursuing too little of goods and services Deficit financing for development is much safer than deficit financing for a war

With all comparisons it seems destruction finance is basically different from construction finance A comparison between the two is instructive but also brings to light the fact that development finance should be easier if reason prevails over emotions Unfortunately passions and emotions rule supreme during a war but recede to the background when one thinks of economic development How fine would it be if development could rouse the same feelings as a war !

POINTS TO REMEMBER

1. Both war and development necessitate large scale expenditure.
2. War is solely a responsibility of the government whereas development is a responsibility of the people as a whole.
3. Where development proceeds on a centrally planned basis, there is no difference between the two.
4. How do governments raise their resources to finance a war and how far can we employ the same measures to finance development ?
5. The burden of additional taxation, loans, deficit financing.
6. Destruction-finance and construction-finance.

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2. Lewis, W. : *Theory of Economic Growth*.
3. Agarwala and Singh : *Economics of Under-development*.

Q 36. Discuss the nature of the relationship between profits and investment in capitalist economies. (Delhi 1962)

Ans. It is essential to pinpoint the central features of a capitalist economy in order to understand and appreciate the motivation for investment. A capitalist economy, in contradistinction to a socialist one, could be well characterised, if not completely defined, in terms of the ownership and operation of the means of production. Most of the means of production in a capitalist economy are owned and operated by private enterprise for private profit, excepting for public utilities and important key industries of strategic military importance, the ownership and operation of which vests in the state. The ownership of the bulk of the means of production in land and capital must remain with the private entrepreneurs if at all any economy is to be called a capitalist economy.

Owners of the means of production are at liberty to employ the producers' goods at their command for any purpose, not prohibited by law. There is almost an unrestrained area of freedom for the utilisation of the means entirely according to the desire of the owners. There is, what is known as, the freedom of occupation. Workers can take up any occupation which gives them the best of advantages in terms of remuneration and the conditions of work. Land-owners are free to put their land to any use in accordance with their own calculus of their maximum gain. Persons with savings at their disposal are free either to hold them idle in the form of unutilised hoardings or convert the same into any other

form of asset according as they think best for themselves. Similarly entrepreneurs are at liberty to engage themselves in any occupation which they regard best for themselves on economic as well as non-economic grounds. Liberty along with private ownership is a basic feature of the capitalistic order.

Another feature of a capitalist economy is the existence of rational self interest which guides the direction of the movement of the various factors of production into different occupations. The factors of production in a capitalist economy generally tend to move into those occupations which bring the maximum of economic gain in terms of rent, wages, interest and profit. There is ruthless struggle and competition for the capture of the best of markets. The guide to production is the expected rate of returns which in turn is determined by the expenditure pattern of the people. Those who command the greatest amount of money exercise the greatest weightage over the pattern of expenditure and hence they are the most important determinants of the decisions to produce. What to produce and how much to produce has to be decided on the basis of the expected rate of profits which is determined solely by the nature of the market for the commodity in question. The objective guide to production is the expected gain out of a given piece of economic behaviour.

Given these three basic features of a capitalist economy, we have to examine the relationship between profits and investment. There is a mutual cause and effect relationship between the volume of profits and the volume of investment. Over a certain span of time this mutuality works itself out in terms of the influence of the volume of profits on the volume of savings in the economy and therefore the volume of investment. The volume of investment in turn determines the strength of the flow of income given the flow of income the marginal propensity to consume in conjunction with the marginal propensity to save and invest would determine the nature and strength of aggregate effective demand that determines the general level of prices and hence the marginal efficiency of capital or the rate of returns on a given piece of investment. The capitalistic mode of production is such that it has to guide itself on the basis of the anticipated price for the commodities in a future market as against the expected cost of production. The producers have to compare the factor prices which determine the

nature of the cost of production and the expected prices for the end-products which a certain combination of factors helps them to undertake the production of the commodities for sale. The producers in other words have to compare their own purchase prices as against the sale prices which they expect to get. The guide to production and, hence, the guide to investment is the expected rate of profits or the marginal efficiency of capital. The Keynesian school of thought assigns decisive importance to the prevailing rate of interest along with the marginal efficiency of capital with a view to find out the worthwhileness or otherwise of investment. Should the rate of expected returns or the marginal efficiency of capital be lower than the prevailing rate of interest, the entrepreneurs would, perhaps, not find it worth their while to undertake investment because they can as well earn a certain income by way of interest and avoid, in the bargain, the adventures of an undependable market. The entrepreneurs would deem it worthwhile to undertake investment only if the expected marginal efficiency of capital is higher than the prevailing rate of interest. Here we get a connection between profits and investment *via* the rate of interest, but the trouble as usual is that the rate of interest itself is greatly influenced by the demand for investible funds as determined by the dictates of the investment market. The situation that emerges is one of mutual interaction between marginal efficiency of capital and the rate of interest, and it is rather difficult to say which is the cause and which is the effect. In fact both might be greatly influenced by certain non-economic factors such as the spontaneous optimism or pessimism of the entrepreneurs which it is extremely difficult to examine in terms of a purely economic calculus. In fact, it is pointed out by Keynes himself that the expectations of the entrepreneurs are not necessarily built upon any rational foundation.

The human mind is moved to a tremendous adventure on a complexity of psychological factors of which the role of expected prices might be rather insignificant, especially, when one is taking into account the prices likely to prevail in a distant future market. The present trends, of course, have a disproportionately heavy influence in so far there is tendency to project the present into the future. It must, however, be remembered that the calculus about the future, even about the near future, say about five years

bence is highly unpredictable in character and the assumptions that actuate the motivation for investment are far too many to be merely economic. The primary motivation is obviously economic optimism but this temperament which is conducive to investment is hardly measurable in concrete economic quantities. The motivation for innovation may have its roots in a complex socio-psychological environment as pointed out by Max Weber in his *Protestant Ethics and Spirit of Capitalism*. Religion and the Rise of Capitalism by Tawney as well points out sharply the role of non-economic factors in the motivational patterns of the entrepreneurial classes. When we purport to examine the connection between profits and investment we have to take into account primarily the expected rate of profits as a determinant of investment and here we note that the expected rate of profits is greatly influenced by the current rate of profits as determined by the present prices. The interest rate derives its importance as an alternative to the adventures of investment but in all likelihood it is the rate of investment which should determine the demand for investible funds and hence the rate of interest. Both investment as well as interest are likely to be determined by the volume of enterprise in the economy as determined by the socio-psychological cum political factors.

As against the expected rate of profits which sets the tone of the temperament of the entrepreneurial classes the actual profits determine the ability to save and hence the ability to invest. It is well known that most of the savings of the communities come out of the profit income of the entrepreneurial classes. As a class the entrepreneurs endeavour to earn the maximum and spend the minimum—at least in the initial stages of growth—and the surplus which they expropriate is ploughed back into investment. If the volume of profits be limited because of the high prices of the non-organisational factors of production there is likely to be a dissipation of the investible surplus in the consumption expenditure of the income receivers other than the entrepreneurs. Consumption expenditure can provide a stimulus to investment or increased production only at advanced stage of development. In the backward economies the limitation to investment is set by the poor capacity to save. The expected rate of profit also is not encouraging because of the low purchasing power of the people at large.

There develops, therefore, a vicious circle of low profits and low investment in a major segment of the economy. Should the class that earns high profits be swayed by pleasurable fancies, profits are likely to be squandered much to the detriment of the volume of investment.

POINTS TO REMEMBER

1. It is essential to pin-point the salient features of a capitalist economy in order to understand the relationship between profit and investment.
2. A capitalist economy is characterized by private ownership and operation of the bulk of the means of production and freedom of choice with regard to occupation and consumption.
3. A capitalist economy is guided primarily by rational self-interest. The market plays a vital role in terms of its influence on the entire tone of the economy.
4. There is a two way cause and effect relationship between profit and investment if we consider a certain span of time—profit being the cause of investment and *vice versa*.
5. The Keynesian school of thought holds that the alternative to investment in business is to hold investible funds in banks which give a certain rate of interest. There would be an incentive to invest only if the marginal efficiency of capital is greater than the prevailing rate of interest.
6. Expectations play a vital role in determining the volume of investment and expectations are nothing but profit possibilities. Investment is thus governed by expected profits.
7. Profits constitute the main source of funds for investment, since the other forms of income have a basic tendency to be consumed away. Investment in turn creates incomes which support prices and profits.

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Q. 37. Show how and to what extent monetary policy can be used to promote economic development.

(Allahabad 1960)

Critically examine the role and limitations of monetary policy in a developing underdeveloped economy.

(Suggested Question)

Ans. The term "underdeveloped" country refers to backward or poor country with a low level of *per capita* real income

"under equipped with capital in relation to its population and natural resources" ¹

Although the chronic backwardness of an underdeveloped country cannot be traced to any single factor, it is recognised at all hands that by far the most important factor holding up the pace of economic development in an underdeveloped country is the low rate of capital formation. The rate of capital formation in underdeveloped countries like India, Ceylon, Malaya, Thailand, Indonesia etc., varies from 3—6% of the national income as compared to 15—18% in the advanced industrial countries like the U K, U S A etc.² The meaning of capital formation is that 'society does not apply whole of its current productive activity to the needs and desires of immediate consumption, but directs a part of it to the making of capital goods'³ In a sense, the rate of capital formation is the same as what is meant by the rate of investment. If the low rate of capital formation is the cause of underdevelopment, it logically follows that the remedy for poverty is to step up the rate of capital formation for which it is essential that savings should be increased. The scope of monetary policy in the planned economic development of an underdeveloped country has to be judged in this broad perspective. To the extent monetary policy is capable of influencing savings and investment, it can contribute to economic development.

It should be noted at the very outset that the scope of monetary policy is extremely limited on account of certain structural characteristics of an underdeveloped country. In the first place there is a vast non monetised sector where the changes in the quantity of money or rate of interest do not have any influence upon the nature and level of economic activity. Secondly, the proportion of credit to money in the monetised sector is very low. Nearly 70% of money in circulation is currency and only 25-30% is credit. This seriously limits the role of monetary policy. Thirdly, a monetary policy presupposes the existence of a 'developed' money market which is conspicuous by its absence in an under

1 Nurkse *Problems of Capital Formation in Underdeveloped Countries*, p 1.

2 Meir and Baldwin, *Economic Development*, p 304

3 Nurkse, *Op cit*, p. 2.

developed country. In an underdeveloped country we usually come across "undeveloped" money markets.

By "undeveloped" money market, we mean a market having the following characteristics¹ :

1. An undeveloped money market lacks a highly organised banking system.

2. It is not composed of specialised sub-markets like bill market, bond market, call-loans market, etc.

3. The extent of integration between the different sub-markets is comparatively small. There are sub-markets which often occupy important positions, but which are not connected with or influenced by the banking system. The sub-markets cannot therefore, be effectively controlled by the banking policy. For example, the Indian money market consists of two parts, namely, the "indigenous" and the "advanced" and the two have not been properly co-ordinated.

4. On account of various types of rigidities and bottlenecks which hamper the mobility of capital funds an undeveloped money market is rather insensitive to the impact of international influences.

On account of these factors, the efficiency of monetary policy is extremely limited in an underdeveloped country. But this is not to deny the significance of an active monetary policy in the programme of planned economic development.

The massive problem of economic backwardness in an underdeveloped country cannot possibly be tackled by mere monetary manipulation for its economic development is held up by the real factors rather than by the monetary factors.² But monetary policy can be a considerable support to a policy of planned-economic development "by influencing the supply and use of credit, combating inflation, and maintaining balance of payment equilibrium."³ In the first place, there is utter need in a developing underdeveloped economy of extending the sphere of the monetised sector. This can be done by the establishment and extension of banking and financial institutions. Secondly, as private capital is

1. Sen, S.N., *Central Banking in Underdeveloped Money Markets*, Ch. 1.

2. N. C. Ray, *Role of Monetary Policy in Underdeveloped Countries*, *Economic Affairs*, 1960.

3. Meir and Baldwin, *Op. cit.*, p. 391.

extremely shy in the initial stages of economic development, the maintenance of a cheap money policy is essential for encouraging private investment. Thirdly, economic development is inevitably accompanied by a certain degree of inflation which may jeopardise the whole economy unless controlled by suitable monetary policy. Lastly, economic development also imposes strains upon the balance of payments of the country which can also be managed to some extent by an appropriate monetary policy. Thus although the efficacy of monetary policy is restricted on account of the existence of an undeveloped money market, still monetary policy has undoubtedly an active role to play in a scheme of planned economic development.

Now the question arises, what should be the goal or goals of monetary policy?

The traditional goals of monetary policy have been the stability of exchange rates and the stability of prices. The exchange stability as a goal of monetary policy was associated with the Gold Standard. But after the breakdown of the Gold Standard, price stability took the place of exchange stability. Stabilisation of the general price level was regarded as the supreme objective of the monetary policy during the great depression of the 1930's. But neither exchange stability nor price stability appears to be an appropriate goal of monetary policy in an underdeveloped country.

As most of the countries of the world are members of the I M F, fluctuating exchange rates do not pose any serious problem. Under the I M F arrangement exchange stability can be taken for granted. The goal of price stability appears to be more appropriate for developed country where the fundamental problem is economic stabilisation. In an underdeveloped economy where the basic problem is economic growth, a slowly rising price level would be more suitable as it would have a favourable impact upon the private incentives to invest. It has also been suggested by some economists that a mild inflation by compulsorily cutting down consumptions creates "forced savings" which can be utilised for purposes of investment.¹

The stability of interest rates also does not appeal as an

¹ Bernstein and Patel, *Inflation in Relation to Economic Development*
I M F Staff Papers Oct 1953

appropriate goal of monetary policy in an underdeveloped economy. In fact, some have made out a case for maintaining a high rate of interest in a developing economy.¹ A high rate of interest would, it is argued, restrict the allocation of scarce capital only among the most productive sectors and thus eliminate the wasteful use of scarce resources. It would also serve as an effective anti-inflationary measure by restricting undesirable investment and stimulating saving. The case for a high interest rate policy, however, does not bear close scrutiny.² It is true that a high rate of interest may succeed in controlling inflation through its restrictive effect on all forces of investment. But it is hardly desirable for an underdeveloped country and rapid economic growth to resort to a general restriction on investment for checking inflation. A more effective method of controlling investment in undesirable directions would be to resort to direct controls and control over capital issues. So far as the weapons of monetary policy are concerned the "selection" or "qualitative" methods rather than the rate of interest method of credit control are much better suited to underdeveloped countries. They can be so devised as to ensure reasonable control over investment without producing any adverse effect on investment in desirable channels. Similarly, the argument regarding savings can be summarily disposed of. Savings depend upon the capacity to save and the facilities for saving rather than upon the rate of interest and as such specialised financial institutions should be set up for mobilising the savings. The only case that may be conceded to a high rate of interest policy relates to its employment as a shock tactics. When speculation in goods and securities becomes ripe and gets beyond control by other means, the rate of interest may be employed for pricking the bubble.³

Thus a high rate of interest cannot be a general goal of monetary policy. On the contrary, there is a sound case for maintaining a low rate of interest which has stimulating effect upon employment and income through increased investment.

The optimum employment or in other words full employment

1. Ray, N.C., *Op. cit.*, p. 164.

2. Poddar, A.K., *Monetary Policy in a Developing Economy*, *Yojana*, June 26, 1960.

3. Ray, N.C., *Op. cit.*, p. 166.

is the most appropriate goal of monetary policy for an underdeveloped country. Since increasing employment is associated with the rising income and capital formation, this objective does not require any explanation. An underdeveloped country is characterised by a large volume of "disguised unemployment"¹. The volume of disguised unemployment constitutes in some countries 40-50% of the total labour force engaged in agriculture². The pressure of this large surplus population on land seriously affects agricultural productivity and thereby holds up the development of other sectors. Under such circumstances the provision of gainful employment to the surplus hands becomes a policy of critical importance. What is more significant to note, the disguised unemployed instead of becoming a liability are, as Prof. Nurkse contends, a source of capital formation³. Thus stepping up of the level of employment is a highly desirable goal of monetary policy. But it ought to be noted that a monetary policy cannot influence the level of employment directly, but only indirectly through savings and investment.

POINTS TO REMEMBER

1. The scope of monetary policy is rather limited in an underdeveloped country on account of (a) the existence of a vast non-monetised sector, (b) the low proportion of credit to money, (c) the underdeveloped nature of the market.
2. But in spite of these limitations, an active monetary policy is essential for the smooth functioning of a developing underdeveloped economy. As active monetary policy is useful for (i) the extension of the sphere of the monetised sector, (ii) encouraging private investment, (iii) fighting inflationary pressure, and (iv) correcting disequilibrium in the balance of payments.
3. As regards the goal of monetary policy, exchange stability is guaranteed by the monetary arrangements under the IMF. The goal of price stability is more appropriate for the advanced industrial countries. A mild inflationary policy would be more conducive to economic growth. Optimum or full employment is the most desirable goal of monetary policy for an underdeveloped country, but the influence of monetary policy on employment is only indirect.

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1. Meir and Baldwin *Economic Development* pp. 391-395

1. Nurkse, *Op cit*, pp. 32-23

2. *Ibid*, p. 35

3. Nurkse *Op cit*, pp. 36-39

2. Ray, N. C. : *Role of Monetary policy in Underdeveloped Countries, Econom c Affairs.* April 1960.
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Q. 38. "Money is a leading species of a large genus ; hence monetary policy, in order to be effective, must deal with the whole range of liquid assets. (Poona 1965)

Monetary policy should seek to control nothing less than the state of liquidity of the whole economy. Discuss. (Poona 1965)

Ans. Monetary policy is a policy of regulating the prices and other economic activities of the country through the regulation of the supply of money, use of money and the rate of interest. Traditionally the monetary policy has been linked with the central banking actions. However, regarding the efficacy of monetary policy there have been doubts and have been so expressed at various times. In 1959, the report of the Radcliffe Committee advanced certain views, which made a landmark in the history of monetary policy and its theory. As a result we find a picture which is different from the one we had been taught to believe regarding the process of the working of the monetary weapons and their resultant effects on the economy.

Monetary policy, as explained above, in its traditional sense, means the regulation of the money supply since it is the money supply which is supposed to provide the purchasing power in the market. Purchasing power, in its fluid form, may be called money. Money is fully liquid and has the quality of being a claim in general upon goods and services. The claim may be exercised at any time and in any manner. An asset, which has to be accepted in the payment of a debt, when it is offered, is full money. Similarly any other asset, which by the consent of the people, may be generally acceptable in the discharge of debts will be money—probably just a shade less than the legal tender currency. With the development of banking it was recognised that bank notes and bank deposits were acquiring the qualities of full money very rapidly. Further, it was realised that bank deposits were created, and were in some way limited by the legal tender available to the banks. The availability of cash to the banks was termed the liquidity of the banks and hence it was thought that to control the creation of this non-currency

money in the economy, the liquidity of the banks was to be controlled

The point to be noted here is that other assets which might act as money were ignored. The monetary policy was to be used only for the regulation of currency and the bank money. But now the ideas have changed. The aim now is to control the creation of liquidity as a whole in the economy and not only the credit creation by the banks. Let us see in a little greater detail the concept of liquidity because it is on the basis of this concept that the new ideas of monetary policy are to stand.

Liquidity may be defined as the power of an asset to get converted into another asset by means of exchange. Since ultimately all economic assets are to some extent or other exchangeable with other assets, the liquidity of an asset is to be judged by the quickness and ease with which an asset can get converted into another. Clearly almost every asset has liquidity to some extent or other. Currency has the highest liquidity and is full money. The point is that an increase in liquidity may be through addition to the liquid assets as such or by the increment in liquidity of existing assets. By whatever means there is an addition to the overall liquidity in the economy, there will be a pressure on demand and the prices will tend to rise.

We can add the changes that this concept would be implying for the theory of the rate of interest. Keynes had given us the analysis of the effects of changes in interest rates on the basis of a given total of liquidity in the economy. His view was that all the assets may conveniently be classified in terms of money, securities and commodities. Keynes felt that changes in interest rates had two effects—(1) an influence on the investment and (2) an influence on the holdings of the savings of the community in the form of assets of varying liquidity. The shifts in the liquidity preference and the shifts in the availability of liquid assets would change the interest rates till the desire to hold various assets available becomes equal to their supply. The Radcliffe Committee on the other hand emphasised that the concept of liquidity would force us to take into account not only the banking but also the non banking institutions which are capable of creating liquid assets or which can make existing assets more liquid. They point out that we should neither

consider liquidity, as only consisting of actual availability of cash plus bank deposit nor should we assume that the total liquidity of the economy is fixed. We should rather view liquidity as the accession to and not the actual supply of cash by various potential spenders whose decisions to spend are determined not by actual availability of cash but on what they think about their possibility of laying hands upon. The Committee says: "While the cost of borrowing money can only affect total demand directly in a limited manner.....monetary authorities may bring to bear another influence which can be altogether more pre-emptory. This is the availability of funds to borrowers through particular channels." (Para 387) "If, on the other hand, the money is already *there*, the decision is uninhibited by such financial considerations." (Para 387) "Though we do not regard the supply of money as an unimportant quantity, we view it as only part of wider structure of liquidity in the economy. It is the whole liquidity position that is relevant to spending decisions.....A decision to spend depends not simply on whether the spender has cash or "money in the bank".....There is the alternative of raising funds either by selling an asset or by borrowing; and the prospect of a cash flow from future sales of a product both encourages commitments beyond immediately available cash and make borrowing easier. The ease with which money can be raised depends, on the one hand, upon the composition of the spender's assets and on his borrowing power, and on the other hand, upon the methods, moods and resources of financial institutions and other firms which are prepared (on terms) to finance other people's spending....." (Para 389) "The decision to spend thus depends upon liquidity in the broad sense, not upon immediate access to the money.....spending is not limited by the amount of money in existence, but it is related to the amount of money people think they can get hold of, whether by receipts of income (for instance from sales), or by disposal of capital assets, or by borrowing". (Para 390)

Thus we may say that there is a growing independence from the necessity of borrowing from the banks. The expectations that particular assets can be converted into cash or can be used for payments when the time for payment comes, or borrowings can be had from non-banking institutions, will make the traditional monetary policy ineffective. And the important point to be noted is that these other sources may not be fully dependent upon the availability

of cash to the banks. Probably the non banking institutions may be more potent in providing a financial basis for sustaining demand in the economy. Such a power of finance may be called with Mrs Joan Robinson the power of self finance. The actual effect of this power on the demand pattern will depend upon its quantity and its distribution pattern between different holders.

If the demand is being created by certain expansionary forces in the economy and the liquidity is making it possible for that demand to exercise itself, then raising the interest rate may not help in its reduction. Interest cost is just one of the many influences which investors or spenders will be thinking of. Much more important perhaps will be the general feeling that there is a seller's market. It is very doubtful that a businessman would be much deterred in his activities by an increase of 1% in the rate of interest when he is expecting, say, a 5% rise in the prices due to increasing demand. Here, then, it is not the monetary policy which will be sufficiently effective, comprehensive controls of investments and capital issues will be required to check demand. But this will not be monetary policy, this will be the non monetary portion of the economic policy of the State.

If, on the other hand, the increased liquidity is itself causing more of demand then we should take steps to stop the increase in this liquidity. The Report points out that we may strike at the balance sheets of the various financial institutions by changing the total structure of interest rates which will affect the capital value of their financial assets and thus force them to act in the desired way. It was on the basis of these considerations that the Committee insists upon the structure of interest rates rather than some notion of the 'supply of money' as the centre piece of monetary action.

Thus it follows, that as far as monetary policy goes, it ceases to be fully effective with the development of more and more non banking financial institutions which deal in assets of various liquidity and which help in the emergence of new liquid assets and new methods of finance in the form of trade documents, consumer's credit, the hire purchase system and so on, it is necessary for us to shift from regulating only the money supply to the regulation of the liquidity as a whole. Moreover, the flow of demand cannot be regulated simply through monetary measures and changes in interest

rates. Monetary policy has to be supplemented by management of the non-banking financial institutions in various manners.

POINTS TO REMEMBER

1. Monetary policy was traditionally linked with the regulation of currency and bank money only.
2. But since the publication of the Report of the Radcliffe Committee the scene has changed.
3. The old meaning of money has been modified to stand for the power of liquidity and command in the market.
4. Thus every asset may be able to act as money to some extent.
5. The creation of purchasing power is also thus not limited to the monetary authorities and the banks.
6. There may be a change in the purchasing power simply by a change in the liquidity of the assets, or an addition to the liquid assets. Some financial institutions may undertake the task of making less liquid assets more liquid. The potential purchasing power in the economy may thus go up.
7. Rate of interest would not be the only factor which goes to influence the overall liquidity of the market. Hence to control the demand in the economy, the need is to regulate the creation of the total liquidity in the economy and its distribution between the potential spenders. Just the control of bank money or just the manipulation of interest rate would not be sufficient.

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Q. 39. Outline the main considerations which should be borne in mind when a government is choosing between a policy of devaluation and one of using import restrictions (whether tariffs or quotas) in order to deal with balance of payment difficulties. (London B Sc. 1964)

Ans. When a country is persistently confronted with the problem of an unfavourable balance of trade, the government has to adopt certain measures to correct the imbalance. The credit of the country abroad would be at stake when the debts to the foreigners cannot be paid off in time. The matter is rather serious and has to be remedied in whatever way possible. Balance of

payments difficulties arise out of the fact that exports fall short of the imports. The excess of imports over the exports would be the debts which the importers owe to the exporters from abroad. When balance of payments difficulties persist over a period of time, debts keep on accumulating and the sellers from abroad may start doubting the ability of the debtors to repay the debts. Credit purchases from abroad become increasingly difficult. The governments of the debtor countries are forced to find out the causes that account for the balance of payments difficulties and adopt appropriate remedial measures.

Why should a country import persistently much more than what it is capable of exporting? The demand for exports must be very very strong and the capacity to export must be rather weak in comparison with the demand for imports. It is well known that exports pay for imports. There are two things which have to be taken into account in this connection: the quantity of physical imports as against the quantity of physical exports and again the prices of the commodities imported as against the prices of the commodities exported. When a country runs into balance of payments difficulties it may be because the volume of imports is very much larger than the volume of exports or it may be because the import prices are rather high in comparison with the export prices. The prices of imports as well as exports would be determined by the forces of competition in the world markets. If imports consist of commodities with less of competition and if exports consist of commodities with more of competition, the import prices would be rather high in comparison with the export prices and the result would be an unfavourable balance of trade.

This sort of a situation can be remedied either by augmenting the volume of exports or by realising better prices for the commodities that are exported or by curtailing the volume of imports or by securing reduced prices for the imports. Any one or more of these remedies could be combined to correct the imbalance on the external account.

One way is to curtail imports. Imports could be curtailed in two ways. The government could impose heavy tariff duties on such of the imports as are regarded non essential. The government has to appoint a committee of experts to determine what imports are absolutely essential to the growth of the economy and what

imports could be dispensed with without spelling any danger to the growth. The latter kind of imports could be subject to heavy import duties so that the prices of imported commodities would rise to the extent of inducing a big fall in their demand. The danger in this connection is that the countries thus affected may undertake retaliatory measures. The exports from the country which is trying to restrict imports by imposing heavy duties on them may be subject to the same treatment.

Another way to restrict imports is to impose physical controls on the quantities of the commodities which would be permitted. The commodities allowed could be imported only up to the limits of the quotas fixed by the state. No excess of imports above the limits would be permitted. In this case as well there is every danger of retaliatory measures being undertaken by the countries that are adversely affected by the fixation of quotas. Similar quotas may be fixed for exports from the country concerned and hence, the measures undertaken may not serve any useful purpose.

One of the possible reasons accounting for the fall in the value of exports is the fall in the volume owing to the excessively high prices which a country is charging. If there is a general inflation raging within the country, the domestic market is to compete with the external market for the same commodities. If the producers find the internal market to be fairly remunerative, there is no reason why they should not raise the export prices as well and the result would be a fall in demand on account of the rise in prices. In such a case, the buyers from outside may not have much of an inducement to buy. They may look for other alternative markets and in that case, the countries that are keen to maintain their export markets have to give some inducement to the buyers to continue to buy.

Devaluation is a remedy for the reluctance of the buyers from outside to buy their usual commodities from a country that is passing through a period of inflation. To devalue is to offer more of the currency of one country for a unit of the currency of another country. If at a certain point of time, the exchange ratio between the dollar and the rupee stands at Rs. 5 = \$1 and if the government of India decides to offer Rs. 6 = \$1, the value of the rupee is curtailed and that of the dollar raised. For every dollar one extra

rupee is offered. Thus prior to devaluation any person that offered \$20 would have got Rs 100 but after devaluation he would get Rs 120. He is free to buy commodities with Rs 120 by spending the same amount that he used to spend earlier namely Rs 100. The buyers from outside get more of commodities for the same price or they have to pay less to buy what they used to buy earlier. Devaluation is therefore equivalent to a general cut in the prices of all the commodities. In accordance with the law of demand a fall in the prices should be accompanied by a rise in demand. Devaluation is thus calculated to promote exports by making them cheaper.

Whereas the export prices decline as a result of devaluation the import prices are likely to increase. To get one dollar Rs 6 have to be paid instead of Rs 5. To buy from abroad Rs 100 worth of goods Rs 120 have to be paid. In accordance with the law of demand the imports should fall as they become costlier than before. Devaluation works in both the ways—curtailment of imports and promotion of exports to restore the balance on the balance of payments account. Exports increase but it may not mean much of an increase in export earnings since there has been a fall in their value. Imports decline but even for the reduced quantities of imports the cost may not decline substantially in view of the rise in the import prices. Thus the country that devalues the external value of its currency may suffer on both the accounts unless that fall in the external value is sufficiently compensated by the rise in the general level of prices. Devaluation is again, a matter of prestige for the country concerned since the soundness of the currency is called into question if it is devalued. It is always preferable to overcome the balance of payments difficulties by adopting measures other than devaluation if those measures are regarded to be adequate and effective.

POINTS TO REMEMBER

1. When a country persistently faces unfavourable balance of trade the government has to undertake certain measures to correct the imbalance.
2. Exports pay for imports and hence correction of imbalance implies either curtailment of imports or promotion of exports or both.
3. Export promotion means exporting more and securing better export prices. Importing less and securing lower import prices can cut the value of imports.

4. The government can restrict imports in physical terms by disallowing non-essential things.
 5. If imports are subject to heavy taxation or if quotas are fixed, there is every fear of retaliatory measures.
 6. When there is a general inflation in the country, the domestic market has to compete with the external market.
 7. Devaluation is a remedy of the last resort.
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Q. 40. "The money market structure in India, loose as it is, is comparatively well developed in terms of organised relationship and specialisations of functions." Elucidate. (Madras 1961)

Ans. The market is an institution in which the buyers and sellers of a commodity communicate with each other with a view to buy and sell whatever they wish to acquire or dispose of at a certain price. In the money market, it is money that is being 'sold' (lent) and purchased (borrowed) at a certain price (the rate of interest). When we think of the money market in India, what we denote is a reference to the lending and borrowing activities of institutions and individuals and the structure of interest rates which speaks for the nature of the market and the nature of the demands, for and the supply of money in the economy. The money market structure connotes the inter-relationships and linkages which join the various institutions and individuals either as caterers of finance or as borrowers. Excepting for a minority of individuals who organise their business in money in their own isolated individual capacity, the rest of the organised institutions normally form a part of a bigger structure and all of them come under the guidance of the "super patriarch" the Reserve Bank of India. 'Looseness' of structure indicates the want of a closely knit-up structure in which the various components stand intimately inter-connected. The term "organised relationships and specialisations" alludes to the adversity of functions for the discharge of which the component units of the money market operate in a specialised way with a specialised set of borrowers. We have to examine the nature of the principal dealers in the money market and the speciality of the functions which they are found to fulfil in the context of financial requirements of a growing economy like ours. The judgment that the money market is "well developed" would be valid only if a

significant proportion of the expectations from a good money market are fulfilled by the present structure of the money market in India.

The market in a capitalist society is governed by considerations of maximum personal advantage and even in the money market the buyers and sellers of loan services seek the best of their own interests, excepting for the central bank of a country which has to act as the guardian of the country's money market in the interest of the economic welfare of the community as a whole. The money market in the country could be said to be well developed only when the broad social objectives, which the market is expected to serve, are adequately achieved in practice. The main function of the money market is to make available for development activity in a growing economy like India's a plentiful supply of investible funds. A developing economy is in need of even more and more *of investible funds to undertake capital construction so as to raise* effectively the production potential. In other words, in an economy which is a backward one and in the process of rapid economic development, the primary function of the money market is to make available long term investment on a large scale and at a cheap rate of interest. The money market played a very decisive role in the economic development of Japan and Germany, *de* undertaking, as they did, a very positive role in initiating the process of development. From this view point, the money market in our country is still not well developed. On an average, it is found that the proportion of advances done by our banks towards industrial purposes out of the total advances is less than 50%. It is only recently after the establishment of the Industrial Finance Corporation, that the percentage of advances for industrial purposes has been pulled up to nearly 50% of the total or else, the nature of the advances revealed that our banking structure is primarily commercial in character. Most of the loans advanced are to the traders of the country and they are for short term commercial purposes. The money market covers, of course, all the lenders and borrowers of the country and is, therefore, more comprehensive than the structure of banking as such.

In so far as there is a persistent shortage of investible liquid funds, despite the availability of real investible savings in the form of unutilised factors of production and the essential wage goods,

there is something seriously wrong with the money market. In a really well-developed money market, a shortage of money, as such, would not hamper the growth of the economy when there are real resources and they can be availed of. The function of the money market is to impart liquidity to the investible assets so that entrepreneurs aspiring to play a vigorous and active role in development may not face any obstacle by way of non-availability of adequate financial resources. There is a talk in our country regarding the establishment of banks for the mobilisation of non-monetary savings for the purpose of development. This itself is an index of the fact that the money market is really not well-developed from the view-point of the needs and requirements of a growing economy. There is still existent a large non-monetised sector in our economy in which the role of money is played by real commodities as distinguished from money which is only a token. In any well-developed money market there is no need for commodities to play the role of money. This again shows that our money market is not particularly well-developed.

The institution that covers the entire country both as a lender and as a borrower, is the government at various levels. The government is the biggest dealer in the market and hence the lending and borrowing activities of the government have a profound influence on the demand for and the supply of money as well as the price for the use of money, i.e., the rate of interest. All the same, the role played by the government in the money market of the country is not that predominant as that of private institutions and individuals who exercise a significant control over the supply of as well as the demand for money. The government provides a very small proportion of rural finance by way of loans and a small proportion of industrial finance in the urban areas. The result, therefore, is that the government cannot bring under its own direct supervision the lending and borrowing activities of large number of indigenous bankers who function in their own individual capacity. Banking, in fact, is confined by and large to the urban areas and the rural people are always starved of adequate funds—short-term, medium-term as well as long-term. Even today the money-lenders exploit their semi-monopolistic position in the market to make a huge amount of 'black-money'.

In any well-developed money market there must be a stability

of the rate of interest over certain range, making allowance for temporary seasonal fluctuations to make adjustments for changing needs. The structure of the interest rates in India is really fantastic since the rate of interest varies from 3% to as much as 15% depending upon the nature of the lender, the borrower and the nature of the loan itself, such as the size, the duration, the security etc. In a developed money market the monopolistic elements and the exploitation that ensues therefrom, tend to disappear. The money market in India is not and out a sellers' market and the sellers take full advantage of their monopolistic hold over the market to enrich themselves at the cost of the buyer of loan services. The loose structure of the market is reflected in the wide range over which the interest rate varies. In a well integrated market, there is something known as a long term equilibrium price around which there are marginal fluctuations. In the money market that exists in our country, there is really no such thing as a long term equilibrium rate of interest.

We have a variety of institutions in the market like the government which functions through the various departments, the Reserve Bank of India, the Post Office Banks, the co-operative societies, the finance corporations, the indigenous bankers, village money lenders, the various commercial banks etc., and all of them specialise in certain functions and cater to the financial needs of a certain group of people with whom they have intimate business relations. It may appear that in their own individual spheres, they are pretty well developed in terms of organised relationships and specialisation of functions. In point of fact, a highly monopolistic market, in which the range of prices is varied so widely and in which the services are confined to a chosen few, could hardly be characterised as a well developed market. India's money market is still underdeveloped very much like her economy and is, in fact, a reflection of her economic situation. The Reserve Bank is endeavouring to introduce radical changes and things are certainly bound to improve in future.

POINTS TO REMEMBER

1. The money market refers to the lenders and borrowers of loan services who strike bargain at a certain price (rate of interest).
2. Looseness of structure refers to the fact that the various institutions and individuals that function in the money market have not been

- brought completely under the unified control of the R.B. of India.
3. The money market can be said to be a well-developed one only when the social objectives, which a good financial market is expected to achieve, are adequately fulfilled in practice.
 4. The most important objective in a growing economy is the imparting of liquidity to all the investible real assets so that the maximum rate of growth could be achieved. Perennial supply of funds, at a cheap rate of interest, conveniently accessible is the ideal of a well-developed money market.
 5. The money market in our country is really not well developed in this sense of the term. There is always a paucity of industrial finance since most of our institutions specialise in lending on a short term basis for commercial purposes.
 6. With the establishment of the Industrial Finance Corporation the situation has undergone a change for the better. Industrial advances approximate to nearly 50% of the total.
 7. The money market in India is a highly monopolistic sellers' market with a wide variation of the rate of interest. A significant proportion of the market is still to be brought under the control of the Reserve Bank of India.

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1. Pawandkar, S. G. : *Banking in India*.
2. Basu, S. K. : *A Survey of Contemporary Banking Trends*.
3. Cirvante, V. R. : *The Indian Capital Market*.

Q. 41. Examine the working of the Indian money market and suggest remedies for its improvement.

(Nagpur 1960)

Sketch in broad outline the structure and functioning of the money market in India at present and discuss how far it is sensitive to Reserve Bank action.

(Poona 1960)

What are the characteristics that distinguish developed from underdeveloped money market?

(Nagpur 1950)

Ans. The money market refers to the purchase and sale of the services of money. Money includes mainly currency and credit. Money is purchased and sold in the sense that the dealers in money buy the savings from the depositors at a low rate of interest and sell the same to the debtors at a higher price—the difference being the surplus that is appropriated by the dealers.

The money market consists of the sum total of all the lenders and borrowers who are in contact with each other for purposes of lending and borrowing. In order to understand the working of the Indian money market, we have to examine the nature and operations of the various agencies that undertake the business of collecting deposits from those who save and extending loans and credit facilities to others. The Indian money market is characterised by a diversity of institutions, at the apex of which stands the Reserve Bank of India and at the bottom of which there is an expansive stratum of village money lenders cum traders. In between the two we have the co-operative credit societies, post office savings banks, indigenous bankers, joint stock banks inclusive of the State Bank of India, the various finance corporations at the all India and state levels and the foreign exchange banks. In addition to these agencies that deal in the services of money there is a good deal of lending and borrowing in kind, especially so in the rural areas and the rate of interest charged in such cases is invariably exorbitantly heavy. This, however, usually goes unaccounted for, from being examined as a part of the regular money market since there is no mediation of money to facilitate such transactions.

In terms of the number of the people involved as distinguished from the value of the transactions struck, the rural money market is certainly by far the most important. The monetary needs of the villagers of our country are met by the following agencies in accordance with the findings of the Rural Credit Survey Report

<i>Credit Agency</i>	<i>Proportion of borrowing from Agency</i>	
	<i>per cent</i>	
1 Government	3	3
2 Co operatives	3	1
3 Relatives	14	2
4 Landlords	1	5
5 Agriculturist money lenders	24	9
6 Professional money lenders	44	8
7 Traders and Commission Agents	5	5
8 Commercial Banks	0	9
9 Others	1	8
	100 0	

The figures speak for themselves. It is apparent that the agriculturist money-lenders, professional money-lenders and the traders and commission agents together supply more than 75% of the credit required by the villagers. Relatives are of importance in the hour of need, supplying as they do 14.2% of the credit. The Government and the co-operatives touch the fringe of the problem and the Commercial Banks are only a small fry. *people*

In view of the perpetual poverty of the village folks and the eternal need for credit to meet the undependable vagaries of the merciless Providence, there is always an unfailing demand for money. Loanable funds, on the contrary, are miserably scarce owing mainly to the general economic backwardness of the country and especially so, of the rural areas. The sellers of monetary services enjoy a status of almost an unmatched privilege. It is a fantastic position of monopoly. The range of the rate of interest charged by private agencies stretches from 12% to 15% ! The poorer a man, the smaller the security to offer and hence, the higher would be the rate of interest. "From each according to his weakness" seems to be the principle religiously followed by the pious money-lenders of our country.

The State can hardly make amends for the situation by law, unless a certain element of competition is introduced between the lenders. The money market in the countryside is entirely a sellers' market. The supply of credit has to increase enormously to come anywhere in the neighbourhood of the strength of demand. Legal restrictions on the lenders to curb undesirable practices can go a long way in the sense of driving them away from the open market to the black market. The basic economic disequilibrium between the demand for money as against the supply can hardly be rectified through legislation, unless really effective economic measures are undertaken. The best measures undertaken recently in the direction of improving the conditions of the money-market in the countryside include increased governmental lending to the farmers and the artisans and an expansion of credit by the co-operative societies with the great assistance that is being rendered by the Reserve Bank of India. Too many legal restrictions have led to a shrinkage of credit which helps the unscrupulous money-lenders all the more to exact prohibitive rates of interest. The extension of organised banking facilities to the countryside still remains a dream.

The indigenous bankers are to be found mainly in the small towns. They combine trading along with banking and supply the credit needs of trade and commerce. Most of the indigenous bankers refuse to be drawn within the fold of the regular money market in the country. The efforts of the Reserve Bank to bring them into line with the banking system have not succeeded so far.

The post office savings banks have made a considerable headway ever since their start in the year 1882. Their number stands today around 70,000 and the amount collected by them by the end of 1958, stood at Rs 277 crores. If the post office savings banks are properly organised, these could turn out to be the best agency for galvanising the rural savings. Much needs to be done in the direction of improving the working of the post-office savings banks.

By far the most important agency in the Indian money market are the Joint Stock banking institutions. These are also known by the name of commercial banks. They are all located in the urban areas and have a ready access to the savings of the town and city dwellers. The history of joint stock banking in India has not been very happy. A number of banks have failed and many of the small existing banks are always faltering. The main causes responsible for the failure of a large number of banks are paucity of capital, inexperienced and unskilled management, insincerity of the staff, fraudulent practices, a low liquidity ratio, indiscriminate lending on the basis of insufficient security to the favourite customers, reckless branch banking and the indifference on the part of the government. The Banking Companies Act of 1949 as amended in 1957 gives great powers to the Reserve Bank of India to rectify the anomalies in the Indian banking system. The Reserve Bank can now prescribe the lending policy, the liquidity ratio, inspect the accounts and supervise the activities of the Board of Directors of these commercial banks. The Reserve Bank has the powers to licence or not to license a bank, demand compulsory returns and power of scrutiny over the affairs of banking companies. Attempts are also being made to develop a bill market.

The most important drawback of the Indian money market is the inadequacy of industrial banking as distinguished from commercial banking. The investment corporations have recently filled

the gap to some extent. Nevertheless as yet our money market has a very loose structure.

POINTS TO REMEMBER

1. The money market refers to the purchase and sale of money services and includes all the lenders and borrowers doing business in money.
2. The Indian money market has a diversity of institutions ranging right from the Reserve Bank to the village money-lenders.
3. The rural credit structure as brought to light by Rural Credit Survey of the Reserve Bank of India shows the importance of the private money-lenders.
4. We have a monopolistic interest-structure in the country-side.
5. The role of the indigenous bankers and the post office savings banks.
6. Joint stock banking, its defects and remedies.
7. Inadequacy of industrial banking.
8. The Banking Companies Act of 1949.

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1. Sharma : *Indian Money Market*.
2. Reserve Bank : *All India Rural Credit Survey* (General Report).
3. Mitra : *Post-War Banking in India*.

Q. 42. What factors determine the community's asset preference between money, bonds, equity shares and gold? What phenomena in the Indian economy would your answer provide an explanation for?
(Delhi 1965)

Ans. The point to examine is the set of considerations which influence the choice of assets by those that possess a certain amount of investible savings. People hold their savings in various forms in accordance with their own scale of preference. What factors influence the nature and character of the scale of preference with regard to the choice of assets is the problem to investigate. In fact, this broad question can be divided into four specific categories as required for the purpose on hand. (a) Why do people hold a part of their savings in the form of money? (b) Why is it that some people prefer to hold their savings in the form of bonds that bear a fixed rate of interest? (c) What is the people's attitude to equity shares? and (d) Why is it that some people show a distinct preference for holding gold? We take up these questions one by one.

The first question can be tackled in accordance with the liquidity preference theory as propounded by the General Theory of Keynes. This theory states that people show a certain preference for cash holdings mainly out of three motives namely (a) the precautionary motive, (b) the transactions motive, and (c) the speculative motive. Every one has to lay by a certain amount of cash in order to meet unforeseen difficulties that compel some sudden expenditure. Cash holdings may take the form of either actual hoarding of cash as is done by people from the rural areas not familiar with banking or the form of demand deposits held with the commercial banks. The latter is a common habit in the city areas in which the banking habit is quite well developed. The bankers cannot commit more than a 'safe proportion' of their demand deposits to long term investments in view of the possibility of a sudden demand for withdrawal of cash by the depositors. The liquidity ratio of the banks has to be of a high order.

Most of the people of the category of workers, landlords, bond and stock holders etc., receive their income at certain intervals of time but they have to keep on spending every day over several goods and services to satisfy their daily needs. They have to hold a certain amount of cash with them to meet the daily needs. The cash required for this purpose has its roots in what is called the transactions motive. If the transactions can be carried on mainly with cheques as is done in the advanced countries, the need for cash to pay for transactions would be reduced to that extent. In the backward areas in which cheque payments are not so common, as in the rural areas, there is a great need for cash holdings. In the developed economies with wide spread banking habits the need for cash on this account is not likely to be so great. Much, of course, depends on the volume of transactions as well.

Keynes attaches the greatest importance to the speculative motive. The speculators have to hold huge quantities of cash to be able to carry on their speculative activities. The ups and downs on the stock exchanges bring about big changes in the demand for cash. Keynes seems to believe that the demand for cash arising out of the speculative motive is likely to be much greater than that arising out of the precautionary and the transactions motives put together. This of course, is likely to be true of the highly industrialised countries, with well developed stock markets. In the

backward countries, speculation is limited to only a few stock exchanges that exist and in view of the narrow range of stocks and shares because of limited industrialisation, the need for cash out of the speculative motive is not likely to be so big as it is in the developed countries. The cash-boardings of the well-to-do peasantry of India can be explained by none of the motives given by Keynes. It is out of sheer ignorance of the opportunities to invest and out of a feeling of distrust of unfamiliar things that the rich farmers take to hoarding cash. As institutions to impart liquidity to illiquid assets come into existence and as they spread over the economy, the habit of holding cash is likely to weaken and in course of time, people can take to holding non-cash assets.

Bonds that bear a fixed rate of interest appeal particularly to those people that have some innate aversion for risks and those that have some instinctive preference for safety and certainty. People that wish to make sure that they get a fixed income for their old age or people who want to provide a certain definite income for the education of their children etc., invest their savings in bonds. The alternative to bonds would be fixed deposits in the banks which carry a good rate of interest and besides offer a better security. Whether or not the companies issuing bonds make a profit, the bond-holders are assured of their income and that way, there is a feeling of assurance about a certain minimum of income. The salaried classes, not used to taking any risks of the market and not prepared to face the fluctuations, generally prefer bonds to shares. Bond-values appreciate with a fall in the rate of interest in the market and *vice versa* but there is not much of a risk on this account as well. The investors are, of course, motivated with the desire to strike a balance between security, profitability and liquidity. Bonds make an appeal to a certain section of the people with a particular temperament.

Equity shares are meant for people who are a little more enterprising. The remuneration on the equity shares is tied up with the performance of the companies. There are bound to be certain fluctuations from year to year in accordance with the conditions of the market. During normal times, there need not be any scare about the possibility of a slump and the capital-depreciation arising therefrom on account of the fall in the equity share values. In fact with the assumption of responsibility by the govern-

ment to maintain economic stability by adopting contra cyclical policies (fiscal and monetary) if necessary, the fear of a severe depression is almost ruled out and hence, investment in equity-shares should no longer be so much influenced by risk considerations. In the developing economies in particular in which there is a growing investment being undertaken in the private as well as the public sectors of the economy, the market remains buoyant almost as a matter of certainty and hence, equity shares need not be disfavoured by the investors. In fact there is likely to be a certain capital appreciation in course of time. The socialist policy of the government and the fear of nationalisation may, of course, turn out to be a deterrent to investment but in areas that are clearly meant for private enterprise, such fears need not be there. The enterprising sort of people prefer equity shares.

The preference for gold has its roots in sociological as well as economic considerations. In countries like India gold is a matter of social status, particularly for women and hence, the preference for gold is so common. It is, of course, quite well realised that gold is a dead investment but some of the customs are more powerful than economic calculation. The custom itself is likely to have originated from economic considerations. In the days of old when movable assets were constantly exposed to the danger of robbery and when the modern investment opportunities of the industrialised societies did not exist, the best form of asset which could be held by the people must have been gold which is not so much subject to the wear and tear of time and whose value could always be realised in time of need. The 'return' considerations must have appeared very small in comparison with other advantages and that sort of a situation is there in India even today.

POINTS TO REMEMBER

1. Asset preferences are founded on certain economic, social and psychological considerations.
2. The preference for cash is based on the precautionary, the transactionary and the speculative motives. The last is the most important.
3. As institutions to impart liquidity to liquid assets come into existence the need for cash holding declines.
4. People with an aversion for risks and with the desire for an assured minimum income prefer bonds.
5. Equity shares are tied up with the performance of the companies.

Those that wish to earn a little more in spite of some risks, prefer equity shares.

6. When the government assumes the economic responsibility of stabilising the economy, market risks are minimised and this may stimulate preference for equity shares.
 7. Preference for gold is founded more on social and psychological grounds than on economic calculus.
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Q. 43. "Monetary policy has the advantage over fiscal policy that it is more flexible and affects a broader stratum of economic units." Discuss. *(London B Sc. 1964)*

Ans. The proposition maintains that monetary policy is more advantageous than fiscal policy because it is more flexible and affects a larger stratum of economic units. It is necessary to establish the contention of the proposition by analysing the ingredients of monetary policy and comparing their efficacy with that of an appropriate fiscal policy, with its own usual ingredients. We have to take the two as alternative routes to the same goal and not as competitive contestants. In fact, the two sets of measures could be adopted simultaneously to achieve any given economic purpose.

What does monetary policy consist of ? Monetary policy consists of government's policy with regard to the issue of currency, the maintenance of the bank rate over a certain range, the open market policy and the maintenance of the liquidity ratio of the banks at certain suitable levels in accordance with the needs of the economy. Exercising some legal control over banking activities in general with a view to achieve certain socially useful economic goals is also a part of the monetary policy of the state acting through the instrumentality of the Central Bank.

What is fiscal policy ? Fiscal policy refers to the policy with regard to taxation, public expenditure, public debts, pricing of the goods and services produced in the public sector of the economy, tariff policy of the government with a view to regulate imports and exports in the interest of the nation etc. These measures are calculated to achieve certain aims and objectives in the interest of the society. In fact, certain economists believe that fiscal measures are very powerful weapons in the armoury of the state to achieve

what the state desires to achieve either in the sphere of production or in the sphere of distribution. We can take the ingredients of monetary policy and those of fiscal policy one by one and see to what end they could possibly be put.

Issue of currency In every country the central government exercises complete monopoly over the issue of currency through its control over the Central Bank. How and when and to what extent this vital power is exercised by the government is of immense importance to the whole of the economy. Governments that are desperately in need of revenues as during periods of war or during periods of rapid economic development show a good deal of tendency to misuse their monopoly power over their control of issue of currency. Money is issued in excess of the needs of the economy. There is an enormous expansion of credit as well following the expansion of currency and as a result the money income of the society rises faster than the real income and creates great inflationary pressures. Under the managed currency system the government does not feel the constraint of any objective limitations on the issue of currency and whatever constitutional restrictions exist could be easily overcome by amending the constitution itself. There is really no economic activity that remains unaffected by the currency issue policy of the state. Production, distribution, exchange and consumption are subject to profound alterations because of the impact of the currency policy of the state.

Bank rate policy This refers to the policy of the state with regard to the discounting of bills presented by the commercial banks of the country. It is known that the commercial banks accept bills on discount and when they run short of liquid funds, the bills discounted are presented to the Central Bank for discounting once again at lower rate. This rate assumes its importance due to the effect it produces on the liquidity of the commercial banks. If the bank rate is raised the commercial banks have to either raise their own funds or they have to refuse to discount bills presented to them by the trading community. The money market becomes rather tight and therefore a sort of blow is dealt to trading activity. Commodities are not easily lifted off the market. The prices may decline. If the rate is lowered the quantum of liquid funds at the disposal of the commercial banks would increase.

There would be an expansion of credit and a fresh buoyancy would appear in the market. The bank rate, therefore, is of great importance in the context of the level of economic activity.

The open-market operations. This refers to the purchase and sale of securities done by the Central Bank on behalf of the Central Government. The sale of securities by the government withdraws a certain amount of money from circulation till that money is spent by the government and the purchase of securities puts a certain amount of money into circulation. The former brings about a fall in the supply of credit whereas the latter causes an expansion in the supply of credit. The government is free to purchase securities at will but it cannot be certain that its own securities would always be sold, unless it enjoys a good credit in the market. The supply of cash and credit can thus be influenced by the open market operations in accordance with the needs of society during a particular period of time. During a period of inflationary pressures a part of the supply could be withdrawn and when there is a little depression money could be injected into circulation. In view of the extremely important role of money in the modern economic life, regulation and control over the supply of money can be an instrument in the hands of the government to control economic activity.

Physical control of monetary policy. The Central Bank can exercise control over all the monetary institutions directly on the basis of the Banking Companies Act and accordingly any policy that is supposed to be in the best interests of the commodity can be executed by the state. Directions could be issued to the banks to follow a definite policy as laid down by the Central Bank.

Taxation policy. Taxation is an important instrument in the hands of the government to achieve certain goals of the society. Taxation is not merely a means of raising revenue. Taxation can be employed as an instrument to discourage the production of such of the commodities as are regarded socially harmful. Such commodities could be heavily taxed. Taxation can be employed as an instrument to curb the unnecessary consumption of the people and to raise the rate of investment in the public sector by obtaining savings by way of taxation. Taxation can be used as an instrument to give protection to the local industries from competi-

tion from outside Taxation can be used as an instrument to reduce inequalities in the distribution of income and wealth. Progressive taxation is an important instrument of socialism. The sort of specific objective which taxation can achieve, monetary policy, perhaps, cannot, because of the basic differences between the two.

Public expenditure and debts Public expenditure is a very powerful factor affecting the welfare of the society. Apart from the direct benefits conferred on society by goods and services provided by public expenditure, there are indirect benefits as well. The maintenance of demand at high level is one of the important benefits indirectly accruing from public expenditure. Social security expenses out of public expenditure bridge the gulf between the rich and the poor. Anti cyclical budgeting has come to stay in the advanced countries. Public expenditure is responsible for the economic development of the underdeveloped areas. Public debts can activate savings, if they are used for a good purpose. Whereas monetary policy is of general nature affecting economic activity at all levels, fiscal policy could be directed towards the achievement of certain specific goals, laid down by the government.

POINTS TO REMEMBER

1. The proposition maintains that monetary policy is more advantageous than fiscal policy because of its flexibility and general applicability.
2. Monetary policy covers the issue of currency, the bank rate policy, the open market operations and other controls exercised by the government.
3. Fiscal policy covers taxation policy, public expenditure, public debts, pricing of public services etc.
4. Monetary policy can control and regulate the supply of money and thus affect the entire society.
5. Fiscal policy can control consumption, raise savings, boost up investment etc.
6. Fiscal policy can be used to improve production and to reduce inequalities in distribution.
7. Whereas monetary policy is of general nature, fiscal policy is more specific.

Q 44 Differentiate between quantitative and qualitative credit controls. Which of them is more effective in the

case of an underdeveloped country? Give reasons for your answer. (J. & K. 1966)

Ans. The central bank of a country has to use a number of weapons in order to control the money market with a view to achieve the desired goals in the monetary and financial field. The central bank tries to select a number of such weapons keeping in mind the requirements of the economy and the circumstances prevailing therein. To begin with, we find that in the armoury of the central bank, those weapons developed which are generally termed quantitative. This means that these weapons try to regulate the overall quantity of credit in the country. There is no consideration regarding the type of credit, the purpose for which borrowing is taking place and so on. Qualitative controls, on the other hand, are those which seek to regulate the creation of credit for specific purposes. Here the aim is not to check the growth of money supply and purchasing power as such but to ensure that there is a limited or no supply of credit for selected purposes. These credit controls for this reason are sometimes referred to as selective credit controls. The quantitative controls do not try to distinguish between the essential and non-essential use of credit. They would be checking the growth of credit even for most essential purposes. Such a policy may be very discouraging for the right type of financing and various essential economic activities may suffer due to that. The financial markets of the country may starve because of the use of the quantitative weapons. But there is no remedy for such an eventuality so long as the use of those quantitative weapons is pursued.

In the case of developed countries we find that the monetary institutions are very closely knit and are sensitive to the changes that may initiate anywhere. In those economies, though the use of quantitative measures will starve the essential needs of credit, still there will be the desired check on the target-uses of credit. We shall see that in underdeveloped countries this is not so in general. There because of the lack of sensitivity of various organs of the money and financial markets, changes initiated in one sector need not spread to others. And so the use of selective credit controls is more important and essential for underdeveloped countries. Let us see in a greater detail this distinction between the quantitative and qualitative controls and the reasons why the use of selective credit controls should be preferred in the case of under-developed countries.

The quantitative controls include bank rate open market operations, and reserve requirements. The bank rate is the rate at which the central bank is ready to give loans and at which it is ready to discount the commercial papers. This bank rate is supposed to guide the rate of interest that will prevail in the market. The changes in the rate of interest will lead to changes in the investment and other activities in the market but the effect will be general—all activities will be influenced. Open market operations are the direct dealings of the central bank with the market in terms of sales and purchase of securities. This weapon is supposed to augment or reduce the supply of cash to the public and to the banks and thereby influence their credit creation activities. The reserve requirements are related to the balances which the commercial banks are expected to maintain with the central bank. In different countries precise powers of the central banks differ on this point, but almost everywhere the central bank is authorised to force the banks to increase or decrease their cash balances with the central bank. This action of the central bank immediately affects the cash supply to the commercial banks and forces them to change their credit creation. In India, the Reserve Bank of India is authorised to force the banks to maintain with it a minimum balance of 5% of demand and 2% of time liabilities. This reserve ratio can be raised to 20% and 8% respectively or any figures below those if the Reserve Bank so desires. This gives in the hands of the Reserve Bank a great weapon to force the banks to curtail credit.

Selective credit controls include rationing of credit, moral suasion, regulatory controls over various types of loans and so on. The main thing to be noted here is that the central bank is going to use its discretionary powers to decide which activities should be curbed and accordingly it makes use of various legal powers with it to achieve this end. The task of administering selective credit controls is more difficult as in this case the central bank has to know not only the general trends in prices and employment, it has also to find out if there are any partial price rises and sectoral imbalances. These controls have to correct these partial imbalance without endangering the general availability of credit.

POINTS TO REMEMBER

- 1 Quantitative credit controls aim at checking the credit creation in

general, without bothering about the purpose for which that credit is meant.

2. These quantitative controls include bank rate, open market operations, and reserve requirements.
 3. Selective credit controls aim at checking credit creation meant for particular purposes. These include weapons like moral suasion, margin requirements and so on.
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Q Compare the Keynesian system and the Classical system as possible Macro-economic models for illuminating the most important economic relationships in an under-developed country
(London, B Sc 1964)

Ans A macro economic model takes a complete view of the entire economy and analyses the working of the whole system as one integrated unit. The important variables of the system are not taken as independent entities, they are taken to be mutually interacting variables, all inter-dependent and the tone of the whole system is regarded as the result of the behaviour of the individual ingredients acting and reacting on each other and producing the net result. The macro-view was dominant in the early stages of the development of the science of economics and it has become dominant once again in the context of the development of the underdeveloped countries—a problem which engaged the attention of the classical economists but was relegated to the background by the later scientists of the 19th century as they got so much preoccupied with the problem of pricing to the extent of regarding the problem of pricing to be synonymous with the whole science of economics.

As a result the macro-view of things or the habit of looking at things from the view-point of individual entrepreneurs or individual firms and individual factors or units of factors of production gained importance and the turn in thought held sway over the minds of the economists for over one and a half centuries¹. Today, there has been a reversal of the stream of thought back again to the classical model.

The immediate question is this. "Who are the representatives of the classical model and how are they relevant in the context of the development of the underdeveloped countries?"

The problem of development of the underdeveloped countries is the problem of poverty of the countries that are still struggling for a living in the pre-industrial stage of their growth. The important economic relationships in the countries would be the ones between the national income, the proportion of that income that goes into consumption and the use of savings to invest and to accumulate capital. The development of technology and the rate of investments are closely inter related. The underdeveloped countries cannot afford to provide even the most urgent necessities of life such as food, water, housing, primary education etc. to the majority of people in their countries. They are now engaged in the task of developing their resources with a view to raise their income and to raise the levels of living of the masses.

The classical thinkers like Adam Smith and Ricardo were concerned with the wealth of nations. Smith's *Wealth of Nations* has to be specially mentioned in this connection. It deals directly with the wealth and poverty of nations on a purely macro basis and conforms closely to the model of an ideal free enterprise economy, the sort of a model that stands for a country like Britain in the 19th century. We have to consider such of the aspects of Smith's theory as are relevant to the growth of the underdeveloped countries today.

The most important economic relationship that Adam Smith takes into account is that between free, unhampered private enterprise and free trade on the one hand and the size of the national income on the other. Smith believed that the minimum governmental enterprise and interference would produce the best of results. When the entire system is left to be worked out on the basis of the free forces of the market, there is a spontaneous growth of economic activity. The invisible hand of the market would take everybody towards the era of prosperity. In the sphere of international trade as well, Smith stood for non-interference on the part of the Government. He was in favour of production for export as much as possible. The business of the Government was to be limited to the maintenance of law and order inside and to prevent aggression from outside.

This reasoning of Smith is rejected outright by the present day underdeveloped countries. They do not believe, and rightly so, that the invisible hand can deliver the goods. They have a firm faith in

planning the use of resources with some definite objectives chosen by the planners. They know that free trade would be ruinous to the national interests. They have to provide protection to the local industries to prevent competition from abroad. The market does not solve their problems. They have to depend on governmental initiative and enterprise. There is hardly any underdeveloped country in the world that does not believe in some form of socialism or the other and does not expect the government to exercise the necessary initiative to get the process of growth on its feet.

The classical thinkers thought that the economy would automatically work at the level of full employment. They could not visualise any under employment equilibrium. This was due to the fact that they were theorising at a time when spontaneous progress could be taken for granted. Today the underdeveloped countries do not believe that consumption, saving and investment would automatically behave in such a way as to raise the economy to higher levels of development. The automaticism of the classical model is no longer acceptable today.

The classical model emphasises the importance of division of labour and the extent of the market. The underdeveloped countries today realise the importance of this in their technological backwardness and the imperfections of the market.

The model of Keynes rejects some of the fundamental propositions of the classical model. The first victim of the Keynesian axe is the theory of automaticism. In the face of the economic condition of the thirties, Keynes could not accept the thesis that there would be a self correction of things. He was all in favour of governmental action to mend matters and restore the economy back to the level of full employment. The underdeveloped countries today accept Keynes completely. In fact, some of them go a step further. Keynes was a great believer in freedom of enterprise and all that he wanted the state to do was to play the role of a doctor to treat the diseases as and when they came. The underdeveloped countries today want the state to play the role of the parents, to raise the economy right from the boot straps.

The underdeveloped countries have extremely low levels of income. A major proportion of the income is consumed away by the ever growing population. The excess of income over consumption is rather small. The savings in the economy are rather insufficient to permit them to undertake any large scale development programme.

The limit to investment is set by domestic savings and the little assistance which they can possibly get from outside. Investment remains low and hence, the capacity to produce also remains rather low. The underdeveloped countries are badly caught up in the vicious circle of poverty. This vicious circle is of a long-term character. The poverty of the underdeveloped countries is something different from the poverty of the advanced countries in their state of depression. The model of Keynes is a short-term model that deals with the problems that arise in connection with the frequent fluctuations in the advanced economies and the king-pin in the general theory of Keynes is the size of investment in relation to the rate of interest. Modern economists who have given so much of their time to the problems of growth of the underdeveloped economies accept that the rate of investment is the key determinant of the rate of economic progress. Keynes gives so much of attention to analyse what determines the size of the national income, the propensity to consume, the propensity to save and the propensity to invest and all these relationships are of immense importance in the context of the economic development of the currently underdeveloped countries that are trying to throw off the yoke of poverty.

POINTS TO REMEMBER

1. *A macro-view takes the complete economy as an integrated system and analyses the relationships that matter to explain the working of the system.*
2. *The classical system is best represented by Adam Smith's Wealth of Nations.*
3. *The concern of the modern economists with the poverty of nations is the same problem that preoccupied the attention of the classicists.*
4. *Keynes was concerned with the elimination of slumps in the advanced capitalist economies. His income theory is relevant to the growth of the underdeveloped countries.*
5. *The backward countries are badly caught up in the vicious circle of low income.*
6. *The classical model of free enterprise and spontaneous growth are of little relevance today.*
7. *The Keynesian model with some modifications could be applied to analyse the problem of development of the underdeveloped countries.*

Q In what respects should a theory of investment decisions in the private sector be modified in its application to public sector investment ? (Delhi 1963)

Ans There is a fundamental difference between the investment decisions in the private sector of the economy and those in the public sector. Private investment decisions are primarily calculated to promote the economic interests of the investors. Any consideration that is not relevant to the self interest of the investors is irrelevant in the calculations about the worthwhileness of a given investment project. The field of investment, the size of investment, the location of investment, replacement of the worn out portion of investment, expansion over time or disinvestment as the case may be etc., are decisions of the highest importance to the investors as also to the community in view of the all-important implications of investment decisions be it in the private or the public sectors of the economy. In fact, the fate of the economy hangs by the investment-decisions in so far as the economic future of the community is tied up with its investment decisions. The rate of growth of the economy depends on the volume of investment, given the capital output rates. The growth of income, employment opportunities, the standard of living of the people, the level of expenditure of the community and the price fluctuations etc., are largely influenced by investment decisions. Consequently, the criteria on which the investment decisions are made assume a decisive significance for the welfare of the community.

Private investment decisions in a capitalist society are obviously motivated with the desire to earn a certain amount of income out of the investment. People invest because they want to earn something out of the investment. This income may be in the form of interest as in the case of long-term bonds or government securities, or it may be in the form of a variable dividend as in the case of ordinary shares, or it may be a combination of both in some form or the other. Investors may also try for capital gains apart from a regular flow of income and there are some who are interested only in this form of gain. Those who invest in real estate may expect rental

income in addition to the possibilities of capital-appreciation and others who invest in real productive ventures may aspire to earn a regular flow of profit. Some investors may desire to build a huge industrial empire to gain prestige and political power. Private investment decisions are likely to have their roots in a complexity of motives and purposes of a short-term or a long-term character. Whatever the individual variations, there is one thing common to all and that is the desire for economic gain or profit.

It is because of this universal desire for profit which is there at the root of private investment decisions that the market in a capitalist society is of such central significance. The market determines the nature of expectations in the minds of the people that have the desire to invest and that are looking for suitable investment channels. Those who desire to invest have to make some sort of a guess as to how the market is likely to change in the future. The guess is a guess without any reliable rational foundation. Nobody can predict correctly how the prices are likely to change for various commodities. A period of gradually rising prices is most congenial to investment in the private sector of the economy. Optimism is sustained over time and hopes of making a fortune are roused in the minds of the business people. That is how the volume of investment in a boom is so significant whereas the amount of investment in a depression comes almost to a stand-still. In fact, there might be a disinvestment. Price-fluctuations determine the marginal efficiency of capital and hence affect the private investment decisions because the investors, i.e., the entrepreneurs take their decisions with reference to the expected rate of returns on a given volume of investment as against the cost of borrowed funds as determined by the rate of interest. If they are to invest their funds they should compare the interest foregone with the expected rate of return on their own investment. Private investment-decisions are obviously based on considerations as to how far a given investment project would be a paying proposition. The field of investment, the location of investment and the continued operation of the things undertaken are based on consideration of cost and returns and everywhere profit is the standard with reference to which a decision is undertaken. The question that now comes up is how far this standard could be adopted in arriving at investment decisions in the public sector of the economy.

The primary question is whether public sector enterprise should think of profits at all. There is no unanimity on this point.

One line of thinking holds that investment in the public sector of the economy cannot be decided upon on the basis of profit-consideration. Profit or no profit certain things have to be done. For instance investment in production for defence cannot be left to the considerations of gain and loss. The security of the country has to be ensured whatever the cost. No cost is much too great to protect the country from external aggression. Production of arms and ammunition, military hardware, the necessary equipment for the military personnel to carry on their training and preparation for a possible war etc., have to be done without any reference to commercial considerations. Profit as a standard of reference is valid in deciding not whether these things are to be done or not to be done but in deciding how best to do what must be done. To extend the private economic calculus to public enterprises such as these would be the height of folly and it is all likely to jeopardise the security of the country.

What is true of national security is also true of vital services calculated to advance the economic welfare of the community. The supply of water, electricity, local transportation, communications, educational services, etc., cannot be subject to the profit test in deciding their worthwhileness. Many a time, some of the services have to be heavily subsidised, when they run into a loss or when they are deliberately planned to run into a loss in the interest of the society. Profit in all such cases is to be measured in terms of the utility obtained by the community as a whole and not in terms of the gain of the individual public enterprise as in the case of private firms. What is of importance is the welfare of the community. Public utility services are never calculated to yield a profit as such unless it be in nominal terms. In fact, some of the thinkers hold that these services be supplied free to everybody, the cost being met out of public revenues. The rich countries of the world can possibly afford to undertake this sort of a welfare measure. One does not see any reason why water should not be supplied free to all the citizens. Similarly, there is no reason why education should not be open and free to all children and at all stages. Cleaning of the streets in the cities is done "free" for all the citizens, in the sense that there is no specific sale of this service to individual citizens. The sweepers are paid for out of the public revenues. The advocates of welfare pricing hold that the same concept be extended to other spheres of essential services.

The public sector cannot stop investing merely because there is a depression in the market. In fact, public works have to be undertaken deliberately during a period of depression with a view to counteract the slump in the market. If the public sector were to behave in line with the private sector, there would be a big chaos in the economic situation of the country. The depression would deepen and the boom would get a further support in case investment in the public sector is to go by the profit-test. It is therefore true to say that investment decisions in the public sector of the economy cannot be undertaken on the same basis as is done by the private firms.

Some public investment, however, may be judged by the profit-test, if the enterprise is to be run purely on a commercial basis. This is particularly of significance in a growing economy with a semi-socialist ideal since the government is under an obligation to mobilise a sufficient amount of savings to finance investment projects. Cost is of significance and therefore profit also is of significance for, at least, theoretical calculations, if not for making a profit as such. Public sector investment cannot be judged on the same ground as the private sector decisions.

POINTS TO REMEMBER

1 *Investment decisions in the public sector of the economy differ radically from those in the private sector since the criteria for the two are likely to be totally different.*

2. *Private decisions are made entirely on the basis of profit and loss considerations including capital gains and losses.*

3. *Prices, therefore, set the tone for private investment decisions since it is the prices which determine profit. Market considerations are of decisive significance.*

4. *Investment, whether to earn rent or interest or profit goes by considerations of security and profitability.*

5. *In the public sector the criteria are not the same. National security may demand heavy investment in defence production regardless of profit.*

6 *Public utilities are not to be run on a commercial basis. In fact, they may deliberately be run at a loss.*

7. *Investment in the public sector has to run counter to investment in the private sector to counteract business cycles. Public investment decisions are mainly for the welfare of the people with some exceptions.*

Q 'A monetary economy is essentially one in which changing views about the future are capable of influencing the quantity of employment and not merely its direction'

Discuss in the light of the above, whether India can be termed a monetary economy (Delhi 1962 Bombay 1960)

Ans The proposition purports to characterise a certain economy, a 'monetary economy', should the quantity and direction of employment be influenced by changing views about the future. The underlying assumption of this proposition is that the employers in a capitalist economy make their decisions regarding the nature and volume of employment on the basis of the marginal money productivity of labour which, in turn, is affected by the 'changing views about the future'. The demand for labour is a derived demand in the sense that labour is employed on the basis of the expected demand for the commodities which labour is expected to produce. The commodities to be produced by additional employment of labour are to be sold for money in a future market and the workers are to be paid their wages in terms of money in advance of the sale of their product. What to produce and how much of labour to employ—the direction and quantity of employment—would be determined on the basis of a comparison between the marginal rate of wages as against the marginal revenues expected out of additional production.

The real point at issue is why this should be made a central feature of a monetised economy. The comparison between the marginal remuneration to a factor and its marginal revenue is of general application to all the factors of production and not to labour alone. There is nothing special about labour which differentiates it from the non labour factors of production so far as the criterion of 'changing views about the future' affecting the volume and direction of employment is concerned. The same could be said about the demand for non labour factors of production. The essence is that calculations in a monetised economy are huilt on the basis of the possibilities of making money in the future and the example given in a particular instance of what generally happens in a monetised

A monetary economy as distinguished from a non-monetary system is characterised by the dominant role played by money in the determination of the level and pattern of economic activity. In a non-monetary economy, production, distribution and exchange are organised primarily from the angle of immediate consumption and not on the basis of the expected monetary gain to be acquired through the process of exchange in terms of money. A non-monetary economy could possibly exist only at an extremely low level of economic activity under primitive conditions of production and distribution. Every improvement in the organisation of production and distribution in the course of economic evolution has been made possible partly because of the ease and facility provided by money as a medium of exchange, a measure of value, a standard in terms of which value could be calculated, and, above all, a store of wealth which, prior to the emergence of the monetary system, was required to be held in the form of a store of umpteen commodities, subject to all the inconvenience of maintaining a big godown.

The view that monetary economy is essentially one in which changing views about the future are capable of influencing the quantity of employment and not merely its direction seems to equate a monetary economy with the capitalistic mode of production and distribution; for, it is only under the capitalistic order that changing views about the future in terms of profit-making possibilities are of decisive significance. In a socialist society, 'changing views about the future' would not obviously refer to the prospects of profits in various directions since the entire business of organising economic activity is not at all motivated by the incentive of making a profit. "Changing views" in a society organised on the basis of the socialistic principles might refer to the difference of opinion among the planners regarding the measure to be adopted to promote the highest good of society. The motive of private profit being eschewed, expectations regarding the future would not play the same significant role that we observe under capitalism. The quantity and direction of employment in a capitalist society would be determined on the basis of the expectations of the entrepreneurial class regarding the possibility of making a profit. In other words, we have to examine the relationship between expectations on the one hand and the quantity and direction of employment on the other.

Expectations about the prospective change in price play a decisive role in shaping the mind of the entrepreneurial classes in their decisions about the volume of investment to be undertaken.

Actuated as they are by the incentive of making the largest amount of profits as quickly as possible, their calculations would be based on the expected difference between the present prices and the future prices—of course, only the positive difference. The prospects of a negative difference would obviously depress economic activity to its lowest ebb and would act as a great stumbling block to economic progress. Production in anticipation of a future demand must, necessarily, be conditioned by the changing views about the future. The views in question would be views about the expected change in the sale prices as against the change in the purchase prices. What matters for the entrepreneurial classes is the excess of the sale prices over the purchase prices.

The Keynesian economic analysis draws a basic distinction between the long-term expectations and the short term expectations and contends further, that there is hardly any rational ground to be either optimistic or pessimistic about what is going to happen in the future—even in the very near future, say after about five years. The tendency of the entrepreneurial classes seems to be to allow themselves to be too rashly and disproportionately influenced by the irrational projections of the present into the future. There are waves and waves of optimism and pessimism which move the entrepreneurs to take their strides in one direction or the other. The buoyancy induced by an optimistic state of mind leads to intense economic activity and the collapse of spirits produced by a pessimistic state of mind does incalculable harm in a depression of economic activity.

The quantity and direction of employment in the long run must obviously be based not merely on the expected rate of profits which in the Keynesian terminology is the marginal efficiency of capital, but also on the non economic motivation of the entrepreneurs to venture out into new fields just for the thrill and romance of a new adventure. There is a good deal of economic activity that emerges out of the sheer spontaneity of natural optimism of the entrepreneurs. But for such spontaneity, the sum total of economic activity would be very small, indeed, in the world.

The prospects of a good increase in the volume of employment get greatly atrophied because of the undesirable diversion of the investible funds into speculative activities, motivated by the desire to reap a rich reward of profits within the shortest period of time. The stock exchanges keep on re-assessing the value of the existing investments in terms of the expected yield of dividends and evoke

certain psychological moods with the investing classes to employ their funds in one direction or the other in search of a fortune. The harm done to real investment and employment by the misuse of investible funds for speculative purposes is highly anti-social and needs to be curbed by law to the extent possible. There is, however, a likely chance of an adverse effect as well. The stock exchanges give a peculiar sense of security to the investors because of the command over liquidity provided by the stock exchanges. Investments and employment receive a stimulation to the extent that investment is undertaken with a clear eye on the possibility of realising locked-up funds in the liquid form at any time, in accordance with one's convenience and requirements.

The volume and pattern of employment would be governed by the volume and pattern of investment of the economy. The volume of investment would turn on the availability of investible funds and the marginal efficiency of capital. The former would depend on the liquidity preference of the people taken in conjunction with the fiscal and monetary policy of the state and the latter would depend on the "changing views about the future". The marginal efficiency of capital depends to a large extent on the marginal efficiency of labour as well, alongwith the dependence on the uncertainty of changing prices. In a monetised economy, the volume of employment turns on the marginal efficiency of capital which includes marginal efficiency of labour as well and the level of money-wages. The workers are extremely sensitive to the level of money-wages and not so much to real wages. A reduction in real wages brought about by a rise in prices is not resisted with the same passion as a reduction in money-wages. The entrepreneurs also are equally concerned with money. Money obviously moves into those channels of investment and employment into which there are better chances of making still more of money. A monetary economy is one in which money is the master, guiding the course of the economy.

In the light of the salient features of a monetary economy, India cannot be termed a completely monetary economy. In the primary segment of the Indian economy production is organised primarily for self-subsistence and not for exchange in terms of money. Production is hardly price-elastic excepting in that part of the primary sector which is commercialised in the sense that the products of this sector have to seek a market for exchange in terms of money. The production of such commodities would be guided and governed by the prospect of making a monetary fortune. The organised sector

of the Indian economy is certainly completely monetised since the motivation behind such economic activity is exactly the same as we find in the case of a monetary economy. A large proportion of the economic activities of our country are carried on either for self subsistence or for small barter and hence the only conclusion which we would draw is that India is a monetary economy only in parts. The volume and pattern of employment in the Indian economy is not totally dependent on the role of money. We are industrialising and monetising the economy and in course of time ours also would be a fully monetary economy.

POINTS TO REMEMBER

- 1 *The salient features of monetary as against a non monetary economy centre around the role of money*
- 2 *It is, perhaps, wrong, to equate a monetary economy with capitalistic order of society*
- 3 *"Changing views about the future have a decisive role to play under capitalism but not so under socialism so far as money is concerned"*
- 4 *The entrepreneurs are guided by waves of optimism. Expectations play a decisive role in the determination of the volume and pattern of employment*
- 5 *The desire for quick profits does a lot of harm as is seen on the stock exchange*
- 6 *Investment is undertaken on the basis of the expected M E C. in conjunction with the role of interest*
- 7 *The Indian economy is only partially monetised*

SELECT READINGS

- 1 Keynes *General Theory*
- 2 Klein *Keynesian Economics*
- 3 Dillard *Keynesian Economics*

Q "In underdeveloped densely populated countries, policies based on welfarism benefit particular groups of

workers at the cost of the labouring class as a whole." Comment. (Bombay 1962)

Ans. The main contention of the proposition is that there cannot possibly be a general increase in the welfare of the workers as a whole in the densely populated underdeveloped countries that pursue labour welfare policies in the early stages of their growth. Welfare measures calculated to advance the cause of the workers benefit particular groups of workers at the cost of the labouring class as a whole since the conditions of underdevelopment do not permit a general rise in the real wages of the workers. Particular groups, of course, can receive a certain benefit by way of a rise in their real wages but the entire class of workers cannot receive a general benefit by way of a rise in their real wages.

This proposition entails that the share that goes to the entrepreneurs, the landlords and the capitalists does not change when there is a rise in the real wages of some particular groups of workers so that whatever extra benefit the privileged class of workers receive is at the cost of the other workers and not at the cost of 'rentiers'. Secondly, it assumes that the size of the net national products is more or less fixed in the underdeveloped economies so that the increase in the welfare of some must necessarily mean a decrease in the welfare of others. This can further be elaborated to mean that the supply of wage-goods in the context of a poor economy is so inelastic that a rise in the money-wages of some of the workers would inevitably generate a certain excess of demand resulting in inflationary pressures that adversely affect the working class as a whole since wages in general have a tendency to lag behind the prices. Inflation is already implicit in the context of an underdeveloped economy in view of the large-scale investments and the growing employment opportunities which distribute an enormous amount of purchasing power in the hands of the people and in case these tendencies be reinforced because of welfarism, the benefit conferred would be sectional rather than general. In case welfarism brings about a rise in the cost of labour, the impact of high wages on employment may be rather adverse particularly when the marginal productivity of labour is low as in the case of the densely populated underdeveloped economies. All these implications need to be examined one by one with a view to understand the validity or otherwise of the proposition that there cannot be an increase in the welfare of the workers as a whole in the conditions of an underdeveloped economy.

Prima facie one must concede to the proposition that limitations of the size of the net national product in the context of a backward economy are much too severe to permit a general increase in the welfare of the workers as a whole. Attempts at redistributing the national income in the state of backwardness of the underdeveloped countries would result in conferring certain benefits on a certain class of workers and not on the workers as a whole. One cannot escape the limitations imposed by the low level of the national income and therefore, a general rise in real wages of a significant character is impossible of achievement even if egalitarian measures of the extreme type be enforced by the government. This argument holds particularly when there is a static economy with a stagnant income and here exactly lies the fallacy of the reasoning which the proposition contains.

If the underdeveloped densely populated country in question is achieving a rapid improvement in the size of the national income as in the case of quite many of the underdeveloped countries today there is really no reason why welfarism should benefit a certain class of workers at the cost of others. The tie is not there between the intra-class conflicts of the workers themselves but it exists between the workers and the capitalists. The inter class conflict is made to look like the intra class conflict as between the privileged and the non privileged workers on the assumption that the privilege of the capitalist classes would remain untouched. The question that immediately comes up when we look at the problem from the viewpoint of labour is that an increasing share of the extra income that is being generated in a growing economy year after year could possibly go to the workers as a whole. Why should there be a presumption that real wages in general would remain stagnant whereas profits, rent and interest would increase with the growth of the economy. It is possible and legitimate to conceive of the welfare of the workers as a whole as the economy develops further. The contention of the proposition would be really valid only if the size of the net national product is assured to remain stagnant at a low level but it is doubtful whether an assumption of this type is really warranted. The conclusion that is based on the assumption of a permanent state of backwardness would obviously be wrong.

The second possible interpretation of the proposition could be made in terms of the increase in the cost of labour because of welfarism and the consequences thereof. It is no doubt true that the densely populated underdeveloped countries have a large volume

of unemployed and underemployed persons and in case the cost of labour increases because of welfarism, the employers might think in terms of substitution of capital for labour wherever such substitution is feasible or they might just prefer to hold their savings idle if the cost of labour is so much as to be a disincentive to invest. The former entails a comparison between the relative cost of labour as against capital and the latter necessitates a consideration of the exact increase in the cost of production caused by welfarism. In spite of all the welfare measures which are currently being undertaken in the underdeveloped countries, the cost of labour per unit of production is likely to be much lower than the cost of capital in view of the enormously high rates of interest that exist in the underdeveloped countries. The wage rates that now prevail for the various categories of labor are so low that no amount of so-called welfarism would bring about a big rise in the cost of labour. The so-called welfare measures do nothing excepting to blunt a little the edges of exploitation. The prosperity of the "U" sector would progress by leaps and bounds even when there is a semblance of improvement in the conditions of workers because of the increasing profit opportunities under the inflationary conditions of a growing economy. The marginal efficiency of capital is bound to improve in a developing economy in spite of the so-called welfare measures and hence there appears to be no reason to believe that the rising cost of labour would be a disincentive to investment. If investment continues unobstructed, the welfare of a certain class of workers need not push up the cost of labour so much as to come in the way of additional employment. The crucial factor is the expected rate of profits and so long as the employers continue to make a profit in spite of better wages, it is difficult to see how welfarism benefits a particular class of workers at the cost of other.

In fact welfarism would be a means to improve the demand for wage-goods and hence, the profit of the producers of wage-goods. It must clearly be realised that not all the wage-goods are inelastic in supply. The stimulus of an increase in the demand for wage-goods would evoke better supplies of many a commodity and therefore, one need not entertain any exaggerated fears about a possible acute shortage of wage-goods which hits hard the workers as a whole, because of the effort of some workers to get better wages. In a developing economy there is no reason why there should not be a betterment in the real wages of the working class as a whole. The contention of the proposition seems to be rather unwarranted unless

one assumes a more or less stagnant economy

POINTS TO REMEMBER

1 *The main contention of the proposition is that welfarism for the working class as a whole is not compatible in the conditions of underdevelopment*

2 *There is some truth in this proposition if one assumes a totally static economy with no growth in the net national income*

3 *One must also assume that the share of the rentiers would continue to remain as high as ever*

4 *Both these assumptions are not warranted. There can be a big improvement in the national income and also a big cut in the share of the non working classes*

5 *There is no reason, therefore why there should not be an improvement in the conditions of the working class as a whole*

6 *In spite of welfarism labour would be cheaper than capital under the conditions of a densely populated backward economy and hence there is no fear of substitution of capital for labour*

7 *Many of the wage goods are elastic in supply and hence, better supplies can bring about an improvement in the conditions of the workers as a whole*

5

Q "While Keynes' three basic factors, the propensity to consume, the marginal efficiency of capital and the interest rate are independent variables, they are nevertheless closely inter related " Develop this statement

(Mysore 1957)

Ans The three concepts of the propensity to consume, the marginal efficiency of capital and the rate of interest constitute the edifice of the whole Keynesian model of income and employment. These factors are independent variables of the system in the sense that one is not functionally related to the other. But still they are inter dependent variables in the sense that they together determine

the levels of income and employment in the community and a change in one variable has its repercussions upon the other two variables. As Keynes has put it : "These determinants (rate of interest, marginal efficiency of capital and the propensity to consume) are, indeed, themselves complex and each is capable of being affected by prospective changes in all others. But they remain independent in the sense that their values cannot be inferred from one another."¹

Now let us see how they are inter-related and how they together determine the aggregate income and employment.

The rate of interest, according to Keynes, is determined by the supply of money in conjunction with the demand for money. The supply of money is determined by the banking system and can be taken to be given at any point of time. The demand for money may be of three types, (a) transaction demand, (b) precautionary demand, and (c) speculative demand. The first two types of demand for money are insensitive to changes in the rate of interest and sensitive to changes in the level of income while the speculative demand for money is highly interest-elastic.² If M be the supply of money, y the level of income and r the rate of interest, we have the relation, called the Liquidity Function,

$$M = f(r, y).$$

It is conceived that the demand for money rises with an increase in income and falls with an increase in the rate of interest.

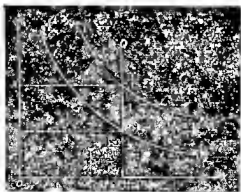


Fig. 1.

1. Keynes—*General Theory*, p. 184.
2. See Answer to Question No. 3.

This functional relationship has been represented in Fig 1. The supply and demand for money are represented on the x axis and the rate of interest on the y axis.

Let the total quantity of money in circulation be OM which is given and constant and that is why the supply curve of money is a vertical straight line QM . Let LP_y be the liquidity preference schedule at a given level of income y . It slopes downward showing that the demand for money rises with a fall in the rate of interest and *vice versa*. The rate of interest r is determined at the point P where the supply of money is exactly equal to the demand for money. Now let the level of income rise to y and on account of this the liquidity preference schedule rises to LP_y . The rate of interest rises to r where the supply of money again equals the demand for money.

The propensity to consume means, in plain language, the desire of the people to spend their income on consumption goods.

What are the factors upon which the propensity to consume depends? The single fundamental determinant of the propensity to consume is the level of real income. There is a positive correlation between consumption and income. As the level of income rises, the people have a stronger tendency to consume and *vice versa*. But it is significant to note that when the income increases, the consumption does not rise by the full amount of the increase in income. Keynes contends that when income rises, the consumption increases by less than proportionate increase in income. To put it technically, the "marginal propensity to consume" is less than unity. The marginal propensity to consume is the ratio of the change in consumption to the given change in income. The marginal propensity to consume being less than unity implies that when income, for instance, increases by 80%, the consumption increases by less than 80%, say, 60% so that the marginal propensity to consume is equal to 60%/80% or 75. Similarly when income decreases, say, by 30%, the consumption decreases by 20%, the marginal propensity to consume is equal to 20%/30% or 66. The maintenance of consumption at a level higher than the fall in income is made possible by the drawing down of the past savings.

The propensity to consume also depends upon the rate of interest. But the relationship between the propensity to consume and the rate of interest is, however, remote and indirect¹. It is

¹ Kurihara—*Introduction to Keynesian Dynamics*, p. 40

postulated that a rise in the rate of interest by increasing the propensity to save weakens the propensity to consume. If C be the aggregate consumption, y the level of income and r the rate of interest, we have the relation called the Consumption Function,

$$C=f(y, r).$$

Assuming that the rate of interest is given and constant, the relation between income and consumption has been represented in Fig. 2.

In the diagram, ON represents the "Null Line" or the zero-saving line showing that at all the levels of income, consumption is

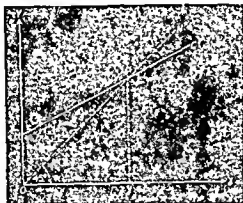


Fig 2 Income

exactly equal to income. In this case, the marginal propensity to consume is equal to unity. This line serves as a standard. The line (it may be a curve also) MC represents the actual propensity to consume. To the left of P , it is above the Null Line indicating negative savings, i.e., when income falls, the consumption does not fall by the amount but less than the reduction in income. Beyond P , there are positive savings—but MC lies below to the right of the Null Line showing that when income rises, the consumption increases by less than the rise in income. The line MC does not start from the origin O , because when the income is zero, the consumption is not nil.¹

The Marginal Efficiency of Capital is defined by Keynes as "that rate of discount which would make the present value of the series of annuities given by the returns expected from the capital asset during its life just equal to its supply price."² In plain

1. Kurshara—*Op. cit.*, p. 32.

2. Keynes—*Op. cit.*, p. 135.

language the marginal efficiency of capital means the expected rate of returns or profit by the investors over the life time of capital asset. The level of investment is determined at the point where the marginal efficiency of capital is equal to the rate of interest. If I be the volume of investment, r the rate of interest and C the volume of consumption, then we have the relation, $I = \phi(r, C)$. It is postulated that a fall in the rate of interest increases the marginal efficiency of capital relatively to the rate of interest while a fall in consumption reduces it.

The supply of money in conjunction with the demand for money determines the rate of interest, given the level of income.



Fig 3

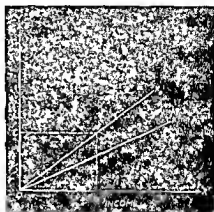


Fig 4

The given level of income together with the rate of interest determines the consumption. The volume of consumption and the rate of



Fig 5

interest determine together the level of investment. If the level of investment corresponds to the point where the marginal efficiency of capital is equal to the rate of interest, the system is in equilibrium, otherwise changes would take place in the variables until they are equal to each other. This process of causation has been explained in Figures 3, 4 and 5.

In Fig. 3, the L_y curves represent the liquidity preference schedules at different levels of income. Given the level of income y_0 , the supply of money M and demand for M determine the rate of interest r_0 . In Fig. 4, the r curves show the levels of consumption at different rates of interest. The given level of income y_0 and the rate of interest r_0 determine the consumption C . In Fig. 5, the rate of interest r_0 and the consumption C_0 determine the volume of investment I_0 .

It is thus clear that there is a close inter-dependence among the three apparently independent variables¹.

POINTS TO REMEMBER

1. *The three fundamental variables of the Keynesian system, the rate of interest, propensity to consume and the marginal efficiency of capital are independent in the sense that they are not functionally related to one another.*

2. *But they are inter-dependent because they act and react upon one another and thus determine the levels of income and employment.*

SELECT READINGS

1. Keynes : *General Theory*, Ch. XVIII.
2. Hansen : *Guide to Keynes*, Ch II, pp. 165-169
3. Lange, Oscar : *Theory of Interest and the Optimum Propensity to Consume, Readings in Monetary Theory* (A.E.A.)

1 Keynes, in fact, makes the rate of interest an independent variable (*General Theory*, p. 24) But this is wrong. His mistake follows from the fact that he often, perhaps generally, made the rate of interest depend exclusively on liquidity preference and the quantity of money. Here indeed he makes the rate of interest serve as an independent variable in place of two underlying functions, liquidity preference and supply of money, which are supposed to fix the rate of interest. In fact, the rate of interest is a determinant, not a determinate. The rate of interest and the national income are together mutually determined by the three basic functions listed above, together with the quantity of money. (Hansen, *A Guide to Keynes*, p. 165).

Q. Examine the effect of a general wage cut on the volume of employment (Delhi 1960)

"It is impossible to increase employment through a reduction in money wages" Give reasons for your answer. (Gauhati 1959)

Ans According to the classical school, the basic determinant of the volume of employment at any time is the level of wages. In a competitive economic system, the classicists contended, where the wage rate is determined by the free play of the forces of supply of labour and demand for labour, the possibility of any permanent unemployment is ruled out. For, if there is unemployment, i.e., if the supply of labour is greater than the demand for labour at any time, the market rate of wages would fall until the supply equals demand, i.e., there is full employment. From this it was deduced that if unemployment continues for a long time, it must be due to wage rigidity on account of imperfection in the labour market. From this analysis it followed that in a situation of large-scale unemployment which is usually associated with a depression, the appropriate remedy is a general wage cut.

This view has been vehemently challenged by Keynes in his *General Theory of Employment Interest and Money* (Ch 19). According to Keynes, the basic flaw in the classical scheme is the implicit hypothesis that when there is a general reduction in wages, the aggregate volume of "effective demand" remains unaltered. This assumption may be valid in the case of a particular firm or industry but to apply this to the economy as a whole would be a great mistake. Therefore, according to Keynes, "the precise question at issue is whether the reduction in money wages will or will not be accompanied by the same aggregate effective demand as before"¹

Keynes contends that a general wage cut will affect the aggregate effective demand through the Consumption Function, Investment Function and the Liquidity Function. In the first place, a general wage-cut implies a redistribution of income in favour of the

1 Keynes—*General Theory of Employment, Interest and Money*, p. 259

profit-makers and against the wage and salary-earners. In other words, the income of the low-consuming class would be increased and that of the high-consuming class would be reduced. The result would, therefore, be a decline in the aggregate consumption. Secondly, if the cut in wages happens to be one not expected to be followed by further reductions, the Investment Function will be favourably affected. A cut in money wages, prices remaining the same or falling in a proportion less than the cut in wages, reduces the cost of production and expands the profit-margin. An increase in profits stimulates investment. A once for all wage-cut is, however, hardly a practicable proposition in a democratic set-up with strong trade unions. A slowly sagging wage-level which is most probable in a democratic set-up, would have a highly adverse impact upon the marginal efficiency of capital and the level of investment. The entrepreneurs would postpone investment in the expectation of further wage-cuts in future. Thirdly, the impact of a general wage-cut upon the liquidity function is, however, likely to be favourable. A fall in wages would normally be accompanied by a fall in prices. Lower wages and lower prices would reduce the "transaction demand" for money. Assuming that the total quantity of money in circulation remains constant the reduction in the transaction demand for money would increase the amount of money available for the "speculative" purpose and this will tend to lower the rate of interest. But as Keynes contends, the same effect can be created much more easily by an increase in the quantity of money.

There are certain additional grounds on which a flexible monetary policy is to be preferred to a flexible wage policy. Firstly, a policy of general wage-cut, even if the trade unions could be persuaded to accept, goes against the democratic ideal of social justice. The fixed incomes and particularly the rentiers receiving income from bonds and other forms of contractual securities would gain a real advantage at the expense of the working class. Secondly, a lower price level consequent upon the wage-cut increases the real burden of both the private and public debts. If the public debt is very heavy, this becomes a major objection to any deflationary policy like wage and price reductions.¹ Thirdly, in the case of an unclosed system, a reduction of money wages, though it improves the balance of trade is likely to worsen the terms of trade and thus there will be a reduction in the real income².

1. Keynes—*op cit.*, p 268.

2. Keynes—*op cit.*, p 263.

A reduction in the rate of interest, on the other hand, is within the easy reach of the monetary authority and its impact on the level of employment *via* the volume of investment is much more direct and immediate

Keynes, while writing his *General Theory* did not consider the "Pigou effect"¹ But the Keynesian conclusions are in no way impaired by this

Prof Pigou has introduced into the classical saving function an additional variable namely, 'the real value of cash balances' This $S = F(i, y, M/P)$, where i is the rate of interest y the level of income, M the quantity of money in circulation and P the average price level so that M/P is the real value of cash balances By basing his analysis on the assumption that a higher real value of cash balances is associated with a lower propensity to save, Pigou contends that falling wages and falling prices by raising the real value of cash balances would step up the aggregate consumption An increase in consumption would lead to full employment through an increase in investment

It has been rightly contended by Prof K K Kurihara that the falling wages and prices instead of promoting consumption may strengthen the propensity to save "For with wages and prices declining unhindered, consumers' over-all asset position can be so impaired as to strengthen their desire to add more to their assets and less to their consumption, especially if the real value of consumer durables is reduced much more than that of liquid assets is increased"² Prof Patinkin, on the other hand, has emphasized that the possible stimulating effect of larger real cash balances on consumption may be offset by the discouraging effect of increased debt burden (in real terms) on consumption due to lower prices, to leave the net effect negligible, if any³

Prof Oscar Lange had set the problem whether a general cut in money wages is capable of ensuring full employment in the framework of the general equilibrium analysis He considers wage flexibility as a special case of the general theory of price flexibility and analyses the conditions under which wage flexibility may be successful in restoring full employment equilibrium⁴

1 N Kaldor—Prof Pigou on Money Wages in Relation to Unemployment, *Economic Journal* 1937

2 Kurihara K K—*Introduction to Keynesian Dynamics*, p 169

3 Kurihara—*Op cit*, p 169

4 Oscar Lange—*Price Flexibility and Full Employment*, Ch 1,

Let there be unemployment of a factor of production. If the factor price is flexible, it would fall which would generate two effects. First, the prices of all other factors being constant, a fall in the price of the unemployed factor induces a substitution of this factor for other factors. This is called the "substitution effect". Secondly, the marginal cost of the commodities into the production of which this factor enters would fall. The price of products remaining constant, this would cause an expansion in output and, therefore, increase the demand for the unemployed factor. This is described by Lange as the "expansion effect".

So far, the prices of the other factors and other commodities have been assumed to remain constant but they are also subject to variations. When the unemployed factor is substituted for other factors, the demand for other factors falls and, therefore, their prices. The substitution effect can take place only when the prices of the other factors fall less than in proportion to the fall in the price of the unemployed factor. Similarly, the expansion effect can materialise only when the prices of the commodities produced with the unemployed factor fall less than in proportion to the fall in marginal cost.

Under what circumstances will these happen? Lange's answer to this is that the "monetary effect" should be present and it should be positive. He defines monetary effect as "the reaction of the community to a proportional change in all prices, i.e., whether the community reacts by a substitution of goods for money or by a substitution of money for goods." The monetary effect is said to be positive when "a proportional fall of all prices causes a substitution of goods for money and *vice versa*".

That a positive monetary effect is essential if the reduction in the price of a factor of production is to be successful in restoring full employment can be seen by considering what would happen in a situation where the monetary effect is absent or is negative. Let the prices of all the factors and products fall in the same proportion as the price of the unemployed factor. There will be no substitution of the unemployed factor for other factors or of one product for another nor will there be any expansion in the output because the product prices fall in exactly the same proportion as the factor prices. If, on the other hand, the monetary effect is negative, both the substitution and expansion effects would be negative leading to an increase in unemployment.

Thus from this we can conclude that a general cut in money wages would be capable of restoring full employment of labour only if the monetary effect is present and is positive

POINTS TO REMEMBER

- 1 *A general wage-cut is the appropriate remedy for unemployment and depression is the central tenet of the classical theory of employment*
- 2 *Keynes challenges this thesis on the ground that a general wage cut could adversely affect the aggregate volume of effective demand and, therefore, employment*
- 3 *Pigou's contention that falling wages and prices would encourage consumption does not hold much water*
- 4 *Lange considers the problem in the context of general equilibrium analysis and concludes that a policy of wage-cut can restore full employment only if the monetary effect is present and is positive*

SELECT READINGS

- 1 Kaldor N Prof Pigou on Money Wages in Relation to Unemployment, *Economic Journal* 1937
- 2 Keynes J M *General Theory*, Ch 19
- 3 Kurihara K K *Introduction to Keynesian Dynamics* Ch 10
- 4 Lange Oscar *Price Flexibility and Full Employment* Chs 1-3
- 5 Hansen *Guide to Keynes*, Ch 10 (pp 179-182)

7

Q "So long as there is unemployment, employment will change in the same proportion as the quantity of money and when there is full employment, prices will change in the same proportion as the quantity of money" Discuss

(Bombay 1957)

Ans What precisely is the relationship between the quantity of money in circulation, and the volume of employment and the general level of prices has been one of the principle topics of the *General Theory* of Keynes. The *General Theory* contends that the volume of employment in the pre-'full employment' period varies

directly in proportion to the change in the quantity of money. Similarly, it is held that the general level of prices after the attainment of "full-employment" changes directly in proportion to the change in the quantity of money. It is clear, there are two points which need to be carefully examined—(i) The relationship between money and employment, and (ii) the relationship between money and prices. Both have to be analysed on the basis of the assumption that "full-employment" has already been attained because currently we are concerned with only one stage of the General Theory. The conception of "full-employment" that is relevant has to be taken in the context of a developed economy with a major industrial sector from the angle of employment as well as output.

Keynes in his *General Theory* was trying to analyse the forces which determine output and employment in an economy. For this purpose, he confined himself only to a developed unplanned free enterprise economy. Further he limited himself to the analysis of determination of output and employment in the short period only which necessitated that he should assume a given supply of productive resources, a given technology and organisational structure. A developed free enterprise economy implied an organised sensitive money and financial market, a developed commercial banking system and a high degree of mobility of labour.

In the context of such an economy Keynes was to find out the causes which limited the working of the economy down to a chronic less than "full-employment" position. The classical economists would not have been able to find out any explanation why such an economy could ever remain at less than full employment for a reasonably long time. But Keynes was no believer in Say's law of markets according to which supply creates its own demand. Rather, he started from the fundamentals and found that Say's law should have no sanctity for the economist because deficiency of effective demand was a regular feature of the developed economies.

We find that though Keynes was more concerned with the causes of this deficiency of effective demand which forced the economy to remain at less than full employment position, he was aware of the fact that at times the economy may be pushed beyond full employment position by artificial means. In such a situation not real employment and income but prices will rise. For a fuller analysis, therefore, we discuss in brief what according to Keynes causes unemployment, how this unemployment can be remedied and

what happens when our measures are stronger than required by the circumstances

First of all, it must be noted that by "full employment" Keynes means absence of involuntary unemployment. Functional unemployment and voluntary unemployment are permissible in Keynesian system just as they are allowed in the classical system but once full-employment is reached so that all those who want to get employment at the going wage rate are able to find jobs, further pushing of the forces which brought about this full employment will not be able to further increase employment and income. With the existence of unemployment, by definition, an excess capacity in the sense of unemployed resources exists and, therefore, increasing employment will mean increasing real employment as well as real income and output. But once full employment is reached, further increase in demand for factors of production will only mean raising their prices, increase in employment only in money terms and increase in output only in so far as their monetary value is concerned.

The causes of unemployment in a developed economy are found by Keynes in the deficiency of effective demand. The interaction of aggregate supply schedule and aggregate demand schedule determines the "particular volume of output at which sale proceeds equal aggregate cost", says Hansen in *Guide to Keynes* (p 29). But this output may not be the full employment output if the aggregate demand is not enough. According to Keynes, this aggregate demand is the sum total of consumption demand and investment demand and so long as the sum of these two is not enough to call for full employment of resources of the economy, there will be unemployment which can be eradicated by increasing this aggregate demand. Keynes analyses the causes which lead to the tendency of this aggregate demand remaining less than the required magnitude. The causes are found in falling marginal propensity to consume and falling marginal efficiency of capital. With rising income marginal propensity to consume falls so that the gap between the total demand needed for sale of all the supply and the actual demand for consumption purposes goes on increasing both in absolute as well as relative terms. This gap can be filled up only through investment demand which, however, is a function of the rate of interest and the marginal efficiency of capital. Now, it so happens that with rising investment and income marginal efficiency of capital also falls because with given productive resources etc., the opportunities for

further profitable investment decline and the investors feel that it is now less profitable to make further investments. The result is that while we needed an ever-increasing investment to fill up the increasing gap between the effective demand and the aggregated supply price, investment tends to lag behind because of falling marginal efficiency of capital.

The remedy is simple. We should increase the aggregate demand so that the supply which full employment of the economy is able to provide can be sold profitably. To increase aggregate demand Keynes suggests creation of new purchasing power by deficit financing by the state, by public works programmes etc. It is here that we come to his famous remedy of increasing employment in the economy by increasing money supply. According to Keynes, investment is a function of the rate of interest and marginal efficiency of capital. Now, given marginal efficiency of capital, investment can be increased by reducing the rate of interest. And rate of interest is determined by liquidity preference and the supply of money. Hence by increasing the supply of money it should be possible for the monetary authorities to reduce rate of interest and thereby increase investment leading to increased demand, employment and output.

Now, if we increase the supply of money when there is less than full employment in the economy, income and employment will increase and the multiplier process will come into action. But multiplier works in such a way that increase in income and employment tapers off at the end unless further stimulus is provided. However, the economy has a number of sectors and sub-sectors, and quite often, at an early stage further investment in some of them is required. In other words, the acceleration process comes into being. This investment, however, needs finance which can be provided if more money is created. As existing supply of money is being utilised for existing flow of income and employment, further investment will be facilitated if more money supply is created. And once new investment is made, excess capacity will be created making it possible for the multiplier to work again and increase employment. Thus, so long as there is less than full employment, increasing supply of money will be able to increase employment either through multiplier action or through accelerator or both. Also we can say that in the case of less than full employment situations injection of extra money means direct addition to money

income and by virtue of excess capacity direct addition to real employment and income by creating extra demand

The difficulty arises when the economy reaches the stage of full employment. At this stage by definition output becomes rigid and so does employment. Effective demand may still be increased by increasing money supply and by creating more of purchasing power, but here the multiplier will be able to create only more of money income. There is no excess capacity and no involuntary unemployment at going wage rate and hence employment cannot be increased. Increased money supply and hence increased demand will only manifest itself in terms of increased prices. Since on the one hand the flow of money income will be increasing and on the other the flow of goods and services will be practically the same the result will be a rise in prices. We can say that beyond full employment the multiplier will start dissipating itself into a rise in prices. Prior to full employment real income multiplier, money income multiplier and employment multiplier were the same now we shall have to distinguish between the three. Increasing money supply, once full employment has been reached, will mean rising money demand in the face of constant flow of goods and services resulting in increased prices all round. Factors will also rise in prices, including wage rates. It is, however not necessary that full employment level should be an absolutely rigid level. It is quite possible that with rising wage rates of the labourers who were unwilling to offer themselves for employment at the going wage rates now offer themselves for employment when wage rates have risen. This increase in wage rate may not be real in the sense that this may not represent a real rise in wage rate, rather it may represent an actual decline in real wages if prices of consumption goods are rising more than money wages as is almost inevitably going to be the case. Money illusion may be present under the impact of which more workers now offer themselves for employment. Due to this reason employment may increase somewhat beyond the original level of full employment. But such is only a temporary thing. We can even say that the attainment of full employment strained the economy to push its full employment ceiling somewhat upwards.

But this points sharply to the fact that it would be wrong to state that beyond full employment money supply will raise the prices in the same proportion. If full employment ceiling can be raised, if real output can be somewhat increased, prices will, to that

extent, fail to register an increase. But anticipation of rising prices may lead to increased velocity of circulation of money causing a more than proportionate increase in prices. Similarly, before full employment the operation of time lags in the production field can raise the prices somewhat, obstructing a proportionate increase in real income and real employment.

Hence, we can conclude that though in a simple manner it is correct to say that before full employment increasing money supply raises employment in the same proportion while beyond full employment, it raises prices in that proportion, we must keep in mind that this is only a simplified truth. In actual practice, even before general full employment is reached, it is quite logical to assume that there will be some industries where full employment will have reached, so that in their case acceleration prices will start working and in the presence of time lags in the increasing of resources etc., it is quite natural that factor prices in those sectors should go up. Again, with rising investment in those sectors it is not necessary that output should increase instantaneously and at constant returns so that prices can rise. However, a general price rise in almost all the sectors will take place when full employment in all the sectors has been reached and therefore it will not be possible to increase employment further in any appreciable way. The only result will be a general rise in prices. To quote Keynes, "Thus if there is perfectly elastic supply so long as there is unemployment, and perfectly inelastic supply as full employment is reached, and if effective demand changes in the same proportion as the quantity of money, the Quantity Theory of Money can be enunciated as follows. So long as there is unemployment, employment will change in the same proportion as the quantity of money, and when there is full employment prices will change in the same proportion as the quantity of money." (*General Theory*, pp. 295-296.)

The conclusion which emerges is that employment, output and prices are closely connected with the quantity of money in circulation, especially so, after the attainment of "full employment" and in the short period. In the monetised industrial economies which function under the motivation of maximisation of private profits, the lure of amassing "currency notes" becomes so powerful that money plays a decisively active role in the determination of the level of economic activity. The role of money after the attainment of "full employment" is particularly significant. It reveals the limita-

tions of playing on the monetary mechanism with a view to stabilise or promote economic activity and this is particularly relevant in the context of the backward economies which find themselves at a level of full employment at extremely low levels of productivity. In the backward economies, the advisability or otherwise of large-scale deficit financing could be analysed only in the light of the Keynesian analysis with respect to employment, output and prices.

POINTS TO REMEMBER

1 *Keynes confined himself to only developed free enterprise economies in the short period*

2 *Here, Keynes found that Say's law may not operate, leading to a chronic under full employment because of falling marginal propensity to consume and falling marginal efficiency of capital. The result is that aggregate demand is not enough to match aggregate supply price at full employment*

3 *Because of the existence of unemployed resources and high mobility of factors of production increasing money supply will increase demand, money income and hence real income and employment*

4 *But beyond full employment real output and employment cannot be increased, so increased money supply only increases prices. Multiplier dissipates itself in the rising prices*

5 *But in this simplified picture if we incorporate sectoral full employment, acceleration principle and the possibility of increasing the supply of factors to some extent beyond full employment we see that even before full employment prices may rise somewhat and even beyond full employment, they may not rise in the same proportion or they may rise more than proportionately due to increased velocity of circulation of money*

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- 2 Williams, John H Deficit Spending *American Economic Review*, February, 1941
- 3 Keynes *General Theory* Ch 21.

Q. "There exists in developed capitalist societies a mechanism whereby starting from a position of serious unemployment, full employment tends to be achieved." Discuss.
(Delli 1965)

Ans. The point to investigate is the nature of the mechanism which is supposed to exist in all developed capitalist societies to raise the economy from a situation in which there is serious unemployment to the state of full employment, presumably without the intervention of the government. This is the classical view of the working of capitalist societies which propounds the belief that there is a certain automatic adjustment of things when the economy works on the basis of free and uninhibited private enterprise. The classical thinkers like Adam Smith and Ricardo advocate a policy of *laissez faire* on the part of the state on the basis of their belief that capitalist societies normally work at the level of full employment excepting for certain lapses during bad times. The spell of these bad periods is, however, held to be quite brief because of the natural and spontaneous buoyancy imparted to economic activity once again after the lull of the slumps. This sort of a belief held sway over the minds of the people in the western world right up to the depression of the thirties. The depression of the thirties, however, was so deep and so disastrous in its impact on the level of economic activity that the traditional faith in the automatic correction of the chronic deficiency of demand started shaking and eventually the thought process culminated in the General Theory of Employment, Interest and Money of Keynes in the year 1936. This book undermines the very foundations of the classical assumptions with regard to the working of a capitalist society, and builds up a strong case for active state intervention to restore full employment. It is essential to know how and why the classical thinkers felt that there exists in developed capitalist societies a certain mechanism whereby starting from a situation of serious unemployment, the economy rises again to a state of full employment.

It must be remembered that the classical thought has its roots in the economic history of Western Europe and especially of Britain

of the 19th century This was a century of tremendous progress, a big lead forward in the direction of unprecedented expansion of economic activity This was the period when science and technology opened up new vistas of progress, discoveries and inventions imparted a deep sense of confidence, colonisation of new lands made it easy to find access to almost inexhaustible sources of the supply of raw materials and labour and ever expanding markets for the industrial commodities and the charm and spell of the Industrial Revolution lulled people into the strong belief that the era of the millennium had already dawned in Europe The thinkers of the day could not just understand how there could possibly be a long lapse from the state of full employment The beliefs of the day reflected the objective economic situation as it obtained at the time of the Industrial Revolution and sometime thereafter This belief continued to hold sway till there was a challenge in the objective economic environment of the thirties

Apart from the hopeful atmosphere of the times, there was some academic basis as well for the belief that there exists some automatic mechanism in advanced capitalist societies to lift the economy from the morass of a state of serious unemployment The academic basis was Say's law of demand which states that supply creates its own demand Say seems to contend that demand deficiencies could always be explained in terms of supply deficiencies In accordance with the implications of this law, the supply of commodities naturally presupposes the demand for labour at a certain level of wages and, as the workers get employed, they do two things—(a) they produce certain commodities and (b) they earn a certain income by way of wages When this reasoning is applied to the entire economy, it follows that income is generated simultaneously with the production of commodities—in fact, in the very process of production of commodities The income thus generated can create demand adequately to absorb all that is produced Say's law does not just recognize in principle the possibility of a chronic deficiency of demand for commodities and hence, the demand for labour, so long as the supply lines continue to work Say's law brings to limelight one of the vital truths about the relationship between supply and demand Both feed each other in a relationship of mutuality of cause and effect The classical thinkers assumed the implicit validity of this law and argued that a lapse from a state of full employment must be of a purely temporary character They could not conceive of any unemployment, save for frictional reasons

Say's law obviously ignores the difficulties that arise out of the concentration of income in the hands of a minority. Assuming that income-elasticity of demand is highly positive, the limit to the rise in demand would be set by size of the extra-income generated inclusive of the multiplier income effects. Chronic deficiency of demand which characterises the working of developed capitalist societies is the outcome of mainly excessive concentration of income in the hands of a small minority. The propensity to consume of the affluent sections remains almost stagnant as they normally live at the saturation point of satisfaction of their basic as well as social and cultural wants. They cannot but save a large proportion of their income. These savings would remain idle unless they are invested. The incentive to invest is rather weak in view of the pessimistic expectations regarding the marginal efficiency of capital. Deficiency of demand for commodities must necessarily mean low marginal efficiency of capital, therefore, the savings remain unused and create deficiency of demand.

This sort of a problem did not arise in the progressive phase of economic development in Europe because of the push forward of the entrepreneurs in search of ever-new opportunities for investment. The search for new commodities, new techniques, new sources of raw material supply etc. kept the innovations ahead of the actual needs of society and hence, it was taken for granted that progress would continue unabated. With the accumulation of capital and the unhampered satisfaction of wants, the craze for enterprise and new ventures gets, perhaps, a little blunted and this is one of the reasons accounting for the existence of unused savings and, therefore, of the deficiency of demand for commodities and hence, the deficiency of demand for labour. Marx thought that serious unemployment would undo the capitalistic order due to the chronic unsold gluts in the market.

Keynes rejected with full force the theory of automaticism in the working of the capitalistic order. He asserted that classical thinking was totally divorced from the empirical facts of the day. The crisis of depression deepens further, *i.e.*, the problem of unemployment grows from bad to worse unless it is checked in time. The state cannot be a mere passive spectator of things as they develop. Some measures have to be taken by the state to check the spread of unemployment. Unemployment is terribly demoralising and debasing to the working classes, apart from the fact that it implies colossal

needless suffering in society which could be eliminated with appropriate measures. Keynes emphasised his view point with pointed reference to the employment creating aspects of the construction of pyramids. He said it is better to fill empty bottles with currency notes, bury them deep down and auction the same for re excavation so that workers may be employed. The point of his thinking is that the state should keep a close watch on the economic situation and on the slightest signs of a depression should launch on a public works programme. The state does not have to go the full length to solve the problems of unemployment since the multiplier effects would do the job once the initial steps are taken. There is no such thing, according to him, as a self-adjusting mechanism.

POINTS TO REMEMBER

1 *The point to investigate is the self adjusting nature of the mechanism of capitalism to move to a state of full employment*

2 *This classical belief seems to be founded on the actual economic experience of the 19th century and the law of demand as put forth by J B Say*

3 *Say's law says that supply creates its own demand and so long as supply lines are working there need not be any deficiency of demand*

4 *Demand for labour is born out of the demand for commodities and hence, so long as commodities are in demand, there need not be any unemployment*

5 *Say's law ignores the difficulties arising out of the concentration of wealth*

6 *Marx thought that demand deficiency would be of a chronic nature*

7 *Keynes believes that the state must take some positive checks to prevent the deterioration of the problem of unemployment*

9

Q "The Keynesian theory is a general theory of income determination. It is valid for a developed as well as an

underdeveloped economy." Discuss. Is there a case for a separate theory for an underdeveloped economy?

(Bombay 1958)

Ans. Keynesian analysis has the unique distinction of shaking the believers in the infallibility of classical economic thought out of their smug complacency. The protagonists of classical economics, including Marshall and Pigou, presumed that the system of *laissez faire* was the best under all circumstances and that the disturbances and dislocation caused by the ups and downs of business would automatically be set right by some 'invisible hand'. In accordance with the tradition handed down to them, right from the days of Adam Smith, they were firm believers in 'nature cure' for the ills of the economic organism. The ebb and flow of economic activities appeared to them nothing more than a passing phase in the eternal march of man to progress and prosperity.

The depression of the thirties delivered a sledge hammer blow to the faith of economists and forced them to revise their thoughts entrenched in traditionalism. The leader of a fresh mode of thought which had to depart sharply off the traditional grooves into new channels turned out to be Lord J.M. Keynes. The basic proposition of Keynes was that there was nothing automatic in the economic mechanism which would guide man from depression to prosperity. "Nature cure" was a remedy when there was no disease to be cured; whenever some indisposition did occur, this cure went to the wall forcing the economists to think *de novo*. The Keynesian technique of economic analysis represents a certain evolution of revolutionary thought in response to the needs of a highly industrialised economy caught up in the abyss of a depression and struggling hard to get out of the morass of falling prices, dwindling profits, rising unemployment, crashing incomes and mounting miseries in the face of men and machines standing idle and economists wondering agape at the charms and marvels of classical economic analysis. Lord Keynes contended that a solution to this sad spectrum could not be found by the grand poise of the state, looking at the phenomenon in a passive poetic posture. He exhorted the state to undertake some definite positive measures to combat the evils attending on the depressive phase of the economy. He advocated primarily three policy measures—(a) to keep a watch on the economy for small dangers around the corner before the troubles actually set in, (b) to keep a plan of public works ready for execution even at a short notice, and (c) to adopt such monetary and fiscal measures as would be of help

in stabilising the economy

The question that comes up at this juncture is about the extent to which the Keynesian mode of thought could usefully be applied for a planned development of underdeveloped economies. The first point to notice is the fact that *laissez faire* is no longer accepted in any underdeveloped area of the world as a dependable way of developing the economy. Planning which was supposed to be mainly a totalitarian technique of economic development, has now come to occupy a respectable place in the most vociferous of democracies. Sanctification of planning in some form or the other even in capitalistic economies, is the direct outcome of the Keynesian Revolution. That the underdeveloped countries of the world aspire to bring about economic growth through a planned programme of development owes as much to Keynesian thinking as to the demonstration effect of Soviet Planning. If the state be advised to assume some important economic responsibilities in the highly advanced industrial economies, the need for state action is all the more in the backward countries of the world, which languish in a chronic shortage of private enterprise. The Keynesian mode of thought is applicable to any backward area of the world in so far as the argument about the need for state action is concerned.

The second proposition of the Keynesian technique is the need for keeping a vigilant watch over the economy with a view to foresee the troubles in advance. In an underdeveloped country the troubles are chronic and not occasional and hence, the need is not for an *ad hoc* diagnosis but for a thorough going examination of the entire structure of the economy. What is needed in an industrially advanced country is a vigilance committee to play the role of a watchdog over the possible occurrence of disturbances whereas, in a backward economy, the need is for a planning commission to undertake a full survey of the resources with a view to formulate a definite and detailed programme of planned development over a period of time. The responsibilities aggravate in proportion to the seriousness of the problem and what looks an innocent vigilance committee in an advanced country becomes an august body, saddled with the enormous burden of initiating the economic development of a country because of the situation of underdeveloped economy crying for an immediate solution. It seems, therefore, that the second proposition of Keynes is applicable to the situation of a backward economy, on a scale much larger than the one visualised in the

context of a developed country. What the underdeveloped countries need is more than a vigilance committee, entrusted with much greater powers and responsibilities.

So far, we are in agreement with the Keynesian technique as applied to the problems of development of an underdeveloped economy. This brings us to an area of dispute. Economists differ on the applicability of the monetary and fiscal measures which Keynes advocated in the context of an industrially advanced economy entrapped in the thrall of a depression. The differences arise out of the basically different economic situation of an underdeveloped economy in comparison with that of a developed country. A developed economy in depression is not the same as an underdeveloped economy. The low level of economic activity during the depression period of a developed economy is not attributable by any stretch of logic to the underdevelopment of human as well as physical resources. It is regarded primarily a monetary phenomenon originating from the slackness of aggregate demand which fails to absorb all the goods and services produced, leading to the accumulation of unsold stocks in the market. The resources—men, machines and raw materials—seem to stand in temporary disalliance, waiting to be reunited on the rise of demand. Should people come into possession of adequate purchasing power, positive income-elasticity of demand would automatically generate forces in the upward direction. The need, therefore, is supposed to be injection of purchasing power into the monetary stream of the community. This could best be done by a scheme of public works which employ initially some idle labour and stimulate the private sector to further activity through the multiplier and the accelerator.

The situation of an underdeveloped country is basically different in the sense that, whereas there are lots and lots of unskilled workers in the over-populated underdeveloped economies and there are also unutilised and under utilised natural resources, there is a positive and glaring deficiency of capital equipment and technical knowledge, of which there is no scarcity at all during the depression period of a developed country. This makes all the difference in the world. Demand-deficiency and deficiency of capital equipment and technical knowledge are certainly not identical. The latter is much more serious and more difficult to face since capital-creation is far more difficult than demand-generation. The difference is between basically low productive capacity and a high productive capacity constructed but not fully used. A strong well-built man during his

illness is certainly something different from a dwarfish weakling trying to grow out of rickety infancy

It is, therefore, contended that mere creation of monetary demand would not be enough to stimulate the necessary entrepreneurial enterprise to undertake construction activity. The supply side is not easily adjustable in spite of a demand which pays. The difficulties arise out of the backward structure of an underdeveloped economy in which there is a deficiency of savings, overhead facilities, entrepreneurial enterprise, knowledge about resources and industrial experience in general. Consequently, measures visualised for application to a developed economy in depression, if applied, as they are to an underdeveloped country would generate demand which is bound to remain unsatisfied because of the non adjustability of supply. It is all likely to generate inflationary forces in the economy because of the time lag between demand and supply.

This is, however, no reason to believe that the underdeveloped countries do not suffer from a general deficiency of demand. In fact, there is an over all deficiency of demand as well as supply because of equilibrium at an extremely low level of productivity. The chief difference between a developed economy in depression and an underdeveloped economy is that in the former case there is a shortage of aggregate demand whereas in the latter case, there is a deficiency of supply and hence of demand. In a backward economy, the brunt of the attack must fall on the supply side whereas, in a developed economy, it is the demand side which needs correction. The instruments to be employed to raise the over all productive capacity of the economy so as to increase the supplies are not the same as those to be called into operation to adjust the demand side.

The conclusion which seems to emerge is, not that the Keynesian technique is totally inapplicable to the situation of a backward economy but that something more needs to be done besides what Keynes advocated and this something more would be in the direction of building more and more production power. Whereas a developed economy is concerned with the problem of maintenance an underdeveloped economy is concerned with the problem of construction as well as maintenance of a high level of economic activity.

POINTS TO REMEMBER

- 1 *Classical thought about the existence of an autonomous self-adjusting economic mechanism is unrealistic*
- 2 *There is no 'nature cure' for the economic ills of a country,*

Something positive and definite needs to be done to stabilise the advanced economies.

3. *Keynesian measures*—(a) overthrow of the theory of non-intervention, (b) adequate vigilance in advance, (c) public works schemes and money and fiscal measures.

4. (1) and (2) totally applicable to all situations and more so to the underdeveloped countries.

5. There is a controversy about (3).

6. There is a difference between a developed economy in depression and a backward economy.

7. Deficiency of aggregate demand as well as aggregate supply.

8. *Keynesian measures* need some modification but are, by and large, applicable. More needs to be done to increase supplies.

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10

Q. Examine the dependent and independent variables of the Keynesian theory of employment. Is the Keynesian system unstable ?
(Gujarat 1958)

Discuss the Keynesian theory of employment

(I A.S. 1958)

“Employment is determined by aggregate demand which in turn depends on the propensity to consume and the amount of investment at a given time.” Elucidate.

(Mysore 1955, '57)

Ans. During the pre-Keynesian era when the classical theories ruled the roost, employment was never conceived to be a serious

problem A state of full ^{employ} development was thought to be normal, lapses being occasional and temporary, originating from the average frictions in the economy It was presumed on the basis of Say's law that demand must always be equal to supply since "supply creates its own demand" Even such a keen thinker as Pigou attributed the prevalence of unemployment to the intransigence on the part of the workers which resulted in a tight wage rigidity forcing the employers to disband some workers out of employment to save themselves from an adverse market situation Pigou believed that full employment should be easy to establish, given a certain amount of wage elasticity in accordance with the requirements of the market The problem of employment was examined on the basis of the marginal productivity of workers to the employers as against the marginal disutility of labour to the workers The prevalence of involuntary unemployment was supposed to be practically non-existent excepting for a little volume of frictional unemployment which appeared during periods of temporary disequilibrium Economists firmly believed that there would be an automatic adjustment towards full employment in spite of the facts to the contrary which pointed a sharp finger at the prevalence of involuntary unemployment on a large scale There was hardly any courage to challenge the usually accepted notions about the problem of unemployment The intellectual boldness to re-examine the problem afresh without any pre-conceived notions came from the publication of Keynes' *General Theory of Employment, Interest and Money* in the year 1936

The classical economists had made one more significant assumption in their analysis They had assumed, as usual, that money is only a veil, a neutral thing, and as such, reduction in real wages for effecting increased employment was the same thing as reduction in money wages Keynes disagreed with this view point

The General Theory purports to examine the way in which the economy as a whole functions, given certain basic variables such as the productive resources of the economy, the state of technology, the quantity and quality of population, the political and social structure, the tastes of the consumer and the ethical value—framework which generally governs the conduct of the people These factors are in no way rigid and absolutely fixed They can undergo a change. But it is assumed that in the short run these things are not subject to any violent change and for all practical purposes they can be taken as given. When the independent variables of the

economic system are undergoing a change, only dependent variables are assumed to respond and not the given factors as well.

The variables of the system could be divided into two categories—*independent* and *dependent*. The former are those variables that can change independently without any provocation from other variables or without any reason which can be ultimately expressed in economic terms and the latter those whose value is determined by the values of the independent variables. Keynes regards the following independent economic variables :

1. The consumption function ;
2. Schedule of marginal efficiency of capital ;
3. Liquidity preference schedule ;
4. Quantity of money ; and
5. The wage-unit.

Of these, the first three are psychological functions based upon ideas, habits and other factors while the fourth one is the quantity determined by the monetary authorities. The dependent variables, *i.e.*, variables following from the interaction of the independent variables are :

1. Rate of interest ;
2. National income, output and employment ;
3. Consumption ;
4. Investment and savings etc.

In connection with this distinction, Keynes observes, "Thus the traditional analysis is faulty because it has failed to isolate correctly the independent variables of the system. Saving and investment are the determinates of the system, not the determinants. They are the twin results of the system's determinants, *viz.*, the propensity to consume, the schedule of marginal efficiency of capital and the rate of interest. These determinants are, indeed, themselves complex and each is capable of being effected by prospective changes in the others. But they remain independent in the sense that their values cannot be inferred from one another."¹ In the above quotation, however, Keynes seems to make the mistake of treating interest as an independent variable which it is not. Thus he himself says that "the rate of interest depends partly on the state of liquidity prefer-

ence (*i.e.*, on the liquidity function) and partly on the quantity of money measured in terms of wage units"¹

Before proceeding further we must note that the "division of determinants of the economic system into the two groups—given factors and independent variables, is, of course, quite arbitrary. The division must be based entirely on the basis of experience, so as to correspond on the one hand to the factors in which the changes seem to be so slow or so little relevant as to have only a small and comparatively negligible short term influence on our *quaesitum*, and on the other hand to those factors in which the changes are found in practice to exercise a dominant influence on our *quaesitum*"² However, given the basis of divisions, we can extend our inquiry and say that the whole of the economic system is determined by the three psychological functions, the wage-unit and money-supply. The wage-unit is determined by the bargains between the employers and the workers and is the amount of money per unit of labour employed. The value of the wage-unit will enable us to measure national income, employment, saving, investment, output etc., in real terms because the effect of price changes will be eliminated. In such a case increase in real employment and output will mean almost the same thing as one will imply the other.

Taking the liquidity preference function and the money supply $r = f(L, M^s)$ as measured in terms of the wage unit, we get the real rate of interest. According to Keynes, investment is highly interest elastic and, therefore, change in money supply or the liquidity preference schedule of the people will be able to bring about a change in investment and hence income and employment. However, investment is not only determined by the rate of interest but is equally influenced by the marginal efficiency of capital, again measured in terms of wage-units. Marginal efficiency of capital is the expected yield on investment and therefore investment will be made so long as it is higher than the rate of interest. Consumption function, in its turn, determines the amount of consumption that will be made out of any given income and shows changes in consumption following changes in income.

With these independent variables Keynes weaves a whole net of the economic functions of a society. Out of a given income, the consumption function determines consumption, and with a given

1 Keynes—*General Theory*, p 246

2 *Ibid*, p 247

liquidity preference schedule and money supply, the rate of interest is determined which, in conjunction with the marginal efficiency of capital, gives us investment. The sum of investment and consumption gives us income. At the same time, income generated by investment of consumption expenditure does not stop there, it generates a effect dependent upon the marginal propensity to consume and thus in turn influences the various independent variables. But this reaction of changes in income, output and employment etc., upon independent variables cannot be ascertained precisely as regards its direction and magnitude. We can only make guesses based upon our observations. These independent determinants of the system are influenced by the dependent variables but not solely determined by them, or only in a particular fashion. The actual economy is quite complex and the above presentation is a simple account of the actuality but nevertheless, "these seem to be the factors which it is useful and convenient to isolate."

Such a system as visualised by Keynes, can be stable only if the independent variables in the system behave in a harmonious manner. The multiplier should be greater than unity but not very large because otherwise if the multiplier is equal to one, huge investments will be required to maintain the economy at a high level of income; and on the other hand if the multiplier is very large, even small investments will have an explosive effect. Therefore, the value of the multiplier should be a moderate one but should not be very sensitive to even moderate changes in interest rates. Changes in investment due to the multiplier effect are likely to lead to much larger increases in income and hence investment has to be kept at a fairly stable rate. Further, increasing income and investment should lead to reduced marginal propensity to consume and marginal efficiency of capital while the opposite should happen when income and investment are reduced. This is necessary to check the economy from either getting pushed up indefinitely or sliding down unchecked.

But, as it happens the values of different psychological functions happen to be such that the economy does experience a chronic tendency towards under-full-employment and a tendency to fluctuate between very low level of employment and a stage of near full employment. This happens because of falling marginal propensity to consume and falling marginal efficiency of capital as income and investment rise.

Following from this it was but natural that Keynes should have quarrelled with classical economists regarding the way in which

employment can be increased. We have seen that according to the classical economists money is neutral. 'Keynes also eliminates the effect of price changes in his calculation but he does not disregard their effect on income and employment' and also ultimately real wage rate is equal to the marginal productivity of labour and also equal to the marginal disutility of labour. Hence if employment is to be increased, real wages are to be reduced. Keynes, since he also analyses the whole thing in terms of wage units, arrives at the conclusion that under given circumstances the economy will be employing the maximum number of workers which at the going real wage rate can be employed, i.e., which the economy can afford to employ in terms of labour productivity. Hence, according to Keynes also, if employment is to be increased real wages should fall.

The conflict arises regarding the mechanism of effecting this reduction in real wage rate. The demand for factors of production is derived from the productivity of factors translated in their market valuation. According to the classical school, the introduction of money into the picture made no difference to the calculations. Reduction of real wages could be effected by reduction of money wages. They based their analysis on the assumption that "(a) the price level is unchanged, (b) that aggregate money demand [MV] is unchanged, or (c) that component of aggregate money demand, e.g. non-wage-earners' expenditure, is unchanged"¹. Clearly, if profits are increased in either of the ways, i.e., by reducing cost with given price level or by reducing costs and keeping the total sales proceeds constant or by reducing the share of wage-income in the total, it will lead to increased investment and employment.

Keynes pointed out certain basic fallacies in this approach². He says that the above analysis is true if we consider any single enterprise. There we can say that the price level, at aggregate sale proceeds can be assumed as given in the face of reduced money wages, but it is wrong to extend this reasoning to the economy as a whole. 'Money wage-rate changes are double edged. They change money costs, but they change at the same time money incomes and hence money expenditures. Even the money expenditures of non-wage earners cannot be assumed unchanged, if their incomes depend in part on the expenditures of wage earners'³. A general reduction in money wages, therefore, according to Keynes, was not going to

1 Harris (Seymour E.)—*The New Economics*, p. 572, 3

2 Keynes—*General Theory*, p. 259

3 Harris (Seymour E.)—*The New Economics*, p. 573

increase total employment because total employment depended upon aggregate supply schedule and aggregate demand schedule and reducing money wage in general means reducing effective demand, hence aggregate demand schedule. In brief, Keynes points out that "whilst no one would wish to deny the proposition that a reduction in money-wages accompanied by the aggregate effective demand as before will be associated with an increase in employment, the precise question at issue is whether the reduction in money-wages will or will not be accompanied by the same aggregate effective demand as before measured in money."

Thus, briefly, the argument was that if we reduce money wages in order to increase employment we shall be defeating our own ends because reduced money wages will lead to reduced aggregate demand and reduced prices leading to non-increment of profitability of investment. The result would be no increase in investment and employment and at the same time due to reduced prices no reduction in real wages. We cannot reduce real wages by the mechanism of reduction of money-wages however hard we may try. Further, there is another difficulty. The workers are under what Keynes calls "money illusion", i.e., they are more concerned with given money wages than with given real wages. They are ready to force an upward revision of money-wage rate every time prices register a small increase; but they are very sensitive to downward changes in money-wages. This money-illusion can be taken advantage of by reducing real wages by increasing aggregate effective demand and prices and thus increasing employment. This aggregate effective demand may be increased by consumption or investment expenditure. Moreover, it is not possible to effect a uniform wage cut throughout the economy by any decree. That can be done only in a totalitarian economy and not in a free-market economy. Here, the reduction in money wage rates will have to be at an uneven pace and at an uneven rate in different industries leading to all sorts of complications.

Keynes further points out that it is better to increase employment without touching money wage rates. Reduction of money wage rates, apart from reducing aggregate money demand and prices may be said to have a healthy effect on investment through reduced demand for money and hence reduced rate of interest. But this doubtful reduction in the interest rate may be more than compen-

sated by reduced marginal efficiency of capital. All told, therefore, it is advisable not to touch money-wage rates for increasing employment.

In the over-populated underdeveloped economies, the problem of unemployment, under employment, open as well as disguised, is far more serious than the problem in the advanced industrialised economies which have come to regard the question of establishing full employment as nothing more than stimulating the propensity to consume and the propensity to invest so as to compensate sufficiently for the deficiencies of aggregate demand. In the backward overpopulated countries the problem is basically one of a disproportionality in the factors of production and mainly it is in the nature of too much of labour trying to find employment with too little of capital. There is a chronic scarcity of enterprise and often there is a deficiency of land as well, as is seen by the scramble for a footing in agriculture. The problem of unemployment and the problem of economic development appear to be largely synonymous in the case of backward economies, productivity of labour employed is an equally serious problem since backward techniques with low productivity can always create large volume of employment without making any substantial addition to income.

POINTS TO REMEMBER

1 *The classical theory of employment was based on marginal productivity theory of wages and the equality of marginal utility of wage with marginal disutility of labour together with assumptions of competition, mobility etc*

2 *They assumed the neutrality of money and thus reached the conclusion that the economy will be having full employment with the absence of involuntary unemployment*

3 *Keynes divides the problem into given factors and independent variables giving us as a result dependent variables. The given factors seldom change, the independent variables are not divided from others, and are the three psychological functions the money supply and the wage unit, while the dependent variables are income, employment, saving, investment etc, in the economy. The division above is not a rigid one. The classical economists did not have to make the division at all.*

4 *On the basis of independent variables Keynes weaves the economic structure of the economy. Such an economy is stable if the*

independent variables behave in a harmonious manner, which they do not.

5. Both the classical and Keynesian analysers agree that to increase employment the real wage rate is to be reduced, but the controversy pertains to the modus operandi. The assumptions of classical economists enabled them to say that reduced money wages will increase employment; while the Keynesian approach dictated otherwise. According to him reduced money wages meant reduced demand prices and hence same or higher real wages. Real wages should be reduced through increased prices by incurring more of consumption and investment expenditure.

6. Workers under the "money-illusion" oppose revision of money wages though not so much the rise of prices. Reduction of money wages in a uniform way is impossible.

SELECT READINGS

- 1 Keynes, J. M. : *General Theory*, Chs. 18 and 19
- 2 Harris, Seymour E. *The New Economics*, Ch. XL (Money Wage Rate and Employment by James Tabin); Ch. XXXIX (Effective Demand and Employment by Arthur Smithies); Ch XVII (Public Policy—the Doctrine of Full Employment by D.B. Copland.)
- 3 A E A . *Readings in Monetary Theory*, Ch 13 (Price Flexibility and Full Employment by Don Patinkin from the *American Economic Review*, 1948),

11

Q. Keynes' General Theory transformed Economics into a theory of output and employment as a whole. Elaborate. (Bombay 1959)

Show how the total output and employment in a country depends upon marginal propensity to consume, the marginal efficiency of capital and the market rate of interest

(Gauhati 1959)

To what extent, and in what manner can the Keynesian analysis of the determination of income in the short period, be used to explain changes in income over time ?

(Calcutta 1957)

Examine the inter-relation between savings, investment and employment (IAS 1957)

Ans *The General Theory of Employment, Interest and Money* appeared in the year 1936, primarily as a challenge to the then universally accepted doctrines of the classical economists who postulated progress to be natural and automatic excepting for occasional lapses for brief periods of time due to some incidental maladjustments. The essay on examining the validity of the classical postulates in the light of the role played by employment, interest and money in point of objective actuality, turned out to be a general theory of investment, employment and output as a whole, especially so, over short periods of time under the conditions of a free society. The revolution in thought was achieved by a sharp turn of attention to the facts of the empirical situation away from the soothing assumptions of the classical economists who relied heavily on the strength of deductive reasoning on the basis of certain premises that were drawn arbitrarily from, perhaps, the characteristics of the early phase of the Industrial Revolution. The departure is wrought from a change over to a critical examination of empirical data and objective evaluation of the postulates of the classical economists. In this process, there emerges a new theory regarding the growth of income and employment in the context of the conditions of the advanced economy, temporarily experiencing a state of stagnation. The general theory is general only to the extent that it could cover all similar cases of advanced economies in a state of temporary depression. The precise point which comes up at this juncture is how far the generality of the theory could be stretched further to explain the phenomenon of underdevelopment of a major part of the world. In other words, can we use the Keynesian theory to understand the problems of economic backwardness and suggest measures for development?

With the triumph of Ricardian approach in economics and with the acceptance of the view by a majority of the economists that a general deficiency of effective demand is not possible, the problem of production was increasingly pushed out of the picture. The British economists, after Ricardo, by and large engaged themselves with the problem of allocation of given resources into different employments in conformity with the demand for various commodities and services. They believed in Say's Law of Markets according to which supply creates its own demand. The problem in such a case was not to create demand so that the supply could be sold out, but

only to adjust supply and demand patterns in such a way as would make them fit together. We find that with the triumph of Ricardians in the controversy between Ricardo and Malthus regarding the possibility of a general glut in the market, the question of growth of the productive resources was also lost sight of. This may be partly due to the reason that Britain was experiencing a rapid rate of growth during the 19th century and therefore the problem of the growth of productive resources was not engaging the attention of the British economists; the economists from all other countries were rather overshadowed by the British. In Germany, for example, economists of the stature of List were emphasising the development aspects of an economy as against the stagnant reallocation problems of productive resources but they were able to make little headway in subjects of absorbing interest in the academic circles. Even with the emergence of Marginal Utility School (which by emphasising consumption side should have been in the forefront in emphasising the possibility of deficiency of effective demand) the problem of effective demand was ignored and only the scarcity aspect of economics was emphasised. The result was that the problem of growth of income did not receive adequate attention the way it is engaging the minds of the economists world-over today, especially after the Second World War. It was implicitly postulated that growth would be spontaneous and automatic. The question as to why the majority of the people suffered privations of poverty did not strike the attention of the economists of the 19th century though, earlier classical economists did scratch their heads precisely on this issue.

Keynes was not the first to take up the view that there may not be sufficient demand for the supply put in the market, but he was probably the most brilliant expositor of the fact that an artificial scarcity of goods and services may arise due to the deficiency of effective demand. The economy may be fully equipped with all the productive resources to feed all its sectors adequately but its working may be paralysed by the inactiveness of certain motivating forces. Keynes had the added score over others in so far as he was emphasising that psychological, non-economic forces are really responsible for a defective working of a modern capitalist economy.

Keynes, in his *Treatise on Money*, was trying to explain the determination of prices of consumption goods and capital goods; but in the *General Theory* he had set himself to quite a different

task. He wanted to ascertain what determined output and employment in an economy and whether the forces determining them could in any way be artificially influenced or controlled into what is primarily a study of the forces which determine changes in the scale of output and employment as a whole, and whilst it is found that money enters into the economic scheme in an essential and peculiar manner, technical monetary detail falls into the background" (*General Theory*, Preface, p vii). For this task we must remember, he confined himself only to a developed, free enterprise economy, with a developed investment and financial market. Actually, he wanted to ascertain the causes due to which a developed capitalist economy failed to the extent it was capable of doing. It was for this reason that he analysed the problem of determination of output and employment in the short period during which the problem of the supply of productive resources did not arise, also during a short period with given productive resources and technology, increased real employment would mean increased real output and *vice versa*. And therefore he assumed that increased output or employment would mean the same thing as far as his analysis was concerned. Again, in order to eliminate the differences between monetary and real values of employment and output he measured employment, output etc., in terms of wage-goods. This adoption of the wage-goods as the units of measurement was a major step which turned economic analysis into one of the determination of real employment and output by eliminating all the effects of prices in the expression of economic quantities.

Keynes for explaining the determination of income, output and employment in an economy, took up some simple propositions, e.g., expenditure of one is the income of the other, greater consumption expenditure or investment expenditure means greater demand and similarly greater savings mean reduced demand. His problem boiled down to the question as to what determines consumption and investment expenditure which in turn will determine the income and employment of the community. For this he came to the conclusion that ultimately there are three non-economic psychological functions which together with the quantity of money determine all the quantities in the economy. These three functions are (1) Marginal Propensity to Consume (MPC), (2) The Marginal Efficiency of Capital (MEC), and (3) Liquidity Preference. The further non-functional determinant is the quantity of money.

To explain in brief, people are slow in changing their consumption habits with the result that if income changes, consumption fails to adjust itself instantaneously to that change. As a result with rising incomes, increases in consumption fail to keep pace with falling incomes, and consumption fails to fall as rapidly. In other words, MPC, which is defined as change in consumption/change in income, falls with rising incomes and rises with falling incomes. Keynes also points out that in developed economies with the growth of the big corporations, the tendency to save a greater portion out of increased income becomes still more pronounced. Since total demand and hence total expenditure and income is determined by consumption and investment expenditure, at least from one side (i.e., consumption side) there arises a hindrance in the maintenance of increased income.

Investment expenditure according to Keynes is determined by the rate of interest and marginal efficiency of capital (MEC). MEC is nothing but the expected future returns on investment and naturally these expectations are influenced by a number of causes including the present state of demand. However, given this MEC, investment will be determined by the rate of interest which has to be paid on the money borrowed for investment. Rate of interest is determined by what he calls the liquidity preference, i.e., demand for money for transactionary, precautionary, and speculative purposes.

Since $Y = C + I$ (where Y is income, C consumption and I investment), therefore to change Y , either C or I or both must be changed. Now consumption out of a given Y is determined by a number of economic and non-economic factors and changes in it will depend upon the MPC. MPC is nothing but $I - MPS$ (Marginal Propensity to Save) because all that is not consumed out of additional income must be saved. Therefore, when to increase Y total expenditure is increased, care has to be taken so as to maintain that the increasing gap between normally increased consumption and income is filled up by additional investment or by additional consumption. Keynes here suggests that we may redistribute our national income in favour of the working classes which are likely to have higher MPC, or we may generate still additional expenditure and consumption demand by means of unemployment relief, doles or similar methods. On the other hand, if the gap is to be filled by increasing investment, then we must either raise MEC or lower the rate of interest. MEC is a thing based upon the expect-

tations of the investors which may be influenced to some extent by certain steps but there is no guarantee as to the efficiency of such steps. If MEC rises, investment will increase, but if it does not, investment will not increase. However, Keynes believes that investment is highly interest elastic and through this end it should be easier to influence investment decisions. Given the liquidity preference, rate of interest can be lowered by increasing the supply of money, which in turn will increase investment, income and employment. The classical economists were under the belief that savings were also interest elastic, so that if the monetary authorities tried to reduce the rate of interest, increased investments are likely to be counteracted by reduced savings. Such a logic, no doubt, ruled out the possibility of a decline in income, but it is in no way proved that the economy was going to attain a full employment position (unless the analysis was aided by other assumptions), or that it was possible to raise employment and income in the economy through manipulation of the rate of interest. Keynes, on the other hand, maintained that while savings were interest inelastic, and were determined by considerations like provision for old age, family considerations, social prestige etc., investment was highly interest-elastic.

However, there were two main hindrances in increasing investment through reduction of interest rate. Firstly, interest rates are sticky, people have certain notions regarding what should be the maximum and minimum normal rates of interest and therefore, if the rate of interest approaches one of these normal limits they start expecting it to change and in anticipation of it may change their demand for money, with the result that with a given supply of money the rate of interest *does* change in the expected direction. It was for this reason that the rate of interest could not be lowered indefinitely. Secondly, when the interest rate had already been lowered sufficiently, increasing investment by *further* reduction in that rate became increasingly difficult. Moreover with increasing investment with given productive resources in the short period) possibilities of further profitable investment decreased leading to reduced MEC.

Thus the result of all this was a peculiar interaction between saving (or consumption), investment and employment and income. Income and employment could be increased, maintained by higher expenditures on consumption and investment. But with rising

income and with distribution of income more and more in favour of non-wage-incomes, MPC falls; and this fall in MPC coincides with the fall in MPC after a certain stage. Thus while on the one side the multiplier action generated by increased investment and consumption expenditure helps to bring the economy quickly to the full-employment level, on the other falling MPC and MEC drag the economy down again, forcing it to remain at less than full-employment level.

All this analysis, however, is limited to the problem of short period only. Therefore, if we are concerned with short period problems, Keynesian analysis is an excellent method of finding out how income over this period is likely to change. But the problem is not one of developed economies only where the main question is of keeping the existing productive resources fully employed. The real economic problem of the world today is to see how economies grow and expand over years and decades, to analyse the forces responsible for this long term economic development and changes in income and to make use of this analysis for helping in the growth of underdeveloped economies. Here Keynesian analysis is helpless, since it cannot deal with the peculiar problems arising out of the immobility and shortage of productive resources with socio-political forces which inhibit the growth of the economy and with the absence of organised sensitive money and financial markets.

There is a basic difference between the questions taken up by the Keynesian school of thought and the problems of economic growth over a long time, especially so, if one has in mind the growth problems of underdeveloped economies of the world. The Harrod-Domar model of growth is an attempt to apply the Keynesian model of growth of income over a long period of time. In the advanced economies, the actual rate of growth is apprehended to exceed the warranted rate of growth resulting in deficiency of aggregate demand. There is always the fear of over-production leading to a depression and this is exactly the Keynesian question of the short period. They want to regulate the natural rate of growth to the warranted rate of growth in order to avoid the pitfalls originating from the accumulation of excess of capital. Accelerated depreciation of capital is supposed to be one of the solutions, perhaps, to raise the marginal efficiency of capital. As one moves on from the short period to the long period, one has to move on to think of not only the growth of income but also the growth of capital and the rela-

tionship between the two, the MPC, the MEC and the propensity to invest. The principal variables in the Harrod-Domar model of growth appear to be the same as those of Keynes, as applied to the secular period.

Coming to the backward economies of the world, we find there are significant structural differences. Here, the aggregate deficiency of demand arises out of the low levels of income and not because of the low MPC. The low MEC may be due to the high cost structure and also low levels of demand owing to lack of overhead facilities. The rate of investment is low because of the vicious circle of poverty leading to a low rate of savings and investment. All this goes to prove that the Keynesian mode of thinking can give significant clues to the line of reasoning to be followed in analysing the problems of growth over a long period of time.

POINTS TO REMEMBER

1 *The triumph of Ricardians over Malthusians led to a consideration of only allocation of productive resources as the economic problem and not the growth of productive resources*

2 *Keynes, though not the first to think of effective demand put it in its proper place*

3 *Keynes shifted from 'Treatise' to the 'General Theory', from analysis of price determination to that of output and employment. For this he made use of the concept of wage goods*

4 *Keynesian theory runs in terms of MPC, MEC, Liquidity Preference and the quantity of money*

5 *MPC falls with rising incomes and rises with falling incomes and thus hinders the attainment and maintenance of full employment*

6 *MEC together with interest rate determines investment*

7 *For increasing and maintaining Y , C and I have to be increased. C is not interest elastic while I is. To the classical economists both C and I were interest-elastic so a change in one was always counteracted by a change in the other*

8 *But there are obstacles in using the interest elasticity for increasing investment in the form of stickiness of interest rates and reduced possibility of lowering interest rate beyond a limit. Also MEC falls with rising investment*

9 *As a result of interaction of saving, investment etc., the economy tends to remain at less than full employment position*

SELECT READINGS

1. Keynes : *General Theory*.
2. Hansen : *Guide to Keynes*.
3. Wilson : *Fluctuations in Income and Employment*.
4. Klein : *Keynesian Revolution*.
5. Harris (ed) : *The New Economics*. Chs. XXXII and XXXIII.

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Q. "The introduction of Keynes' consumption function into the theory of acceleration enabled economists to explain the turning points of general economic activity without resorting to limiting factors." Discuss. (Karnatak 1960)

Show how Keynes' theory of consumption tends to encourage radical policies while his theory of investment tends to encourage conservative policies. (Bombay 1959)

Explain the doctrine of consumption functions and show how this doctrine occupies a pivotal position in Keynes' analysis. (Karnatak 1959)

Examine the uses of "propensity to consume" in the Keynesian macro-economic process. (Mysore 1959)

What do you think of the consumption function as a tool in economic analysis? (Punjab 1959)

Why is the propensity to consume considered one of the strategic relationships affecting the behaviour of an economy? What significance would you attach to the concept of the optimum propensity to consume? (Delhi 1957)

Ans. It is by no means a simple job to get a coherent and systematic view of the web of economic relation in a highly complex exchange economy which hinges by and large around the pivot of the role of money. It is all the more difficult to pick up the right threads from the inter-twining tangle of relations in order to be able to diagnose a certain phenomenon right up to its roots. This task has been well done in the Keynesian analysis of the consumption function on a purely scientific basis. It was held for long with the fervour of an unquestionable conviction that keeping consumption

to the irreducible minimum was the greatest of puritanic virtues. Nobody thought for a moment about the series of chain reactions which would inevitably ensue from holding consumption at a dead level of austerity. The entire question of the function of consumption in a capitalist society was taken up *de novo* by the Keynesian school of thought and made subject to a critical unbiased scientific examination which resulted in the Keynesian theory of the consumption function.

Keynes, in his analysis of the determination of employment, income and output ultimately comes to the conclusion that the determination of the whole economic system can be analysed in terms of three non economic psychological functions viz, (1) consumption function, (2) investment function, (3) liquidity preference function, together with the fourth entity, quantity of money. Naturally, consumption function plays a pivotal role in the Keynesian analysis and deserves accordingly a careful and detailed consideration. We must distinguish here between consumption function and marginal propensity to consume [MPC]. Consumption function is a schedule showing various amounts of consumption at different levels of income. We can draw a graph of this consumption function giving us a consumption function curve. Algebraically consumption function will be written as $C=f(y)$ where C stands for consumption and y for income. On the other hand, if we try to find out the value of consumption function at any particular level of income, we are able to get what is called average propensity to consume which algebraically may be written as c/y , while MPC shows only the rate at which consumption at the margin changes when income changes and is accordingly written as $\frac{\Delta c}{\Delta y}$.

According to the classical economists consumption is determined by the rate of interest. Given income, with rising interest rates saving will increase and consumption will fall and *vice versa* with falling interest rates. To the classical economists savings were interest elastic and all savings were made with the sole purpose of investment. Rate of interest therefore equated savings and investment and there was absolutely no place for idle savings or hoardings. They were using the concept of marginal utility of interest earned on lending one's savings with the disutility of doing those savings (or a similar version of the supply side in terms of disutility of waiting etc). If at any time savings and investment were not

equated by the prevailing rate of interest, it would have to undergo a change to equalise the two. But the difficulty with this approach was that no mechanism was provided by which fluctuations in income and employment could be explained. All deficiencies in effective demand arising out of savings would be exactly made up by investment. Because of this not only the changes in income level could not be explained, the determination of absolute level of income also defied analysis. The main reason for such a glaring defect to persist in classical economics was that their main task was theory of value of exchange and not the theory of income and output. To Keynes, the task of analysing the determination of income and output was really important and so in him we find quite a different approach.

It is significant to note that with Keynes consumption does not get as prominent a place in his *Treatise* as in the *General Theory*. The reason is that there he was mainly concerned with determination of price levels of consumption goods and capital goods but in the *General Theory* his task was to analyse determination of income and employment in real terms. And he founded his analysis on some simple propositions that

$$Y = C + I$$

$$\text{and, } Y = C + S$$

Thus whether Y was considered from the receipt side or expenditure side, consumption attained an important place and naturally he busied himself with the causes that determine consumption. As pointed out the classical economists believed in the interest-elasticity of savings but Keynes did not. To him consumption function was determined by various other factors, e.g., social status, provision against future needs and unforeseen contingencies etc. So while according to the classical economists no savings could have taken place at zero or negative interest rates, according to Keynes this possibility was there provided further needs were strong enough. Further, since savings were made not for interest earning, hoardings were possible.

Keynes used the concept of MPC to give his famous theory of multiplier—a modification of Kahn's employment multiplier. Multiplier is the number of times by which income increases as a result of a given injection of purchasing power in the economy. For example, if as a result of injection of purchasing power of Rs. 100

in the economy, total increase in income experienced by different people is Rs 300, then the multiplier is $300/100$, i.e., 3. The value of multiplier depends upon the value of MPC. Multiplier action takes place because expenditure of one is the income of the other, and the moment an expenditure is made, income rises by an equal amount, and when that income is re-spent by its recipient, income rises further by an amount equal to the new expenditure.

Algebraically, multiplier $= \frac{1}{1-MPC}$, so that if the recipient of the first injection of purchasing power does not spend any portion of his income but saves all of it, then the total increase in income of the community is equal to the amount which this person received. Here, therefore, multiplier is equal to one $\left[= \frac{1}{1-0} \right]$. On the other hand if any recipient of additional income goes on spending $\frac{1}{10}$ of the additional receipts, the total increase in income as a result of the injection of one unit of purchasing power will be

$$1 + \frac{1}{10} + \left(\frac{1}{10}\right)^2 + \left(\frac{1}{10}\right)^3 + \dots = \frac{1}{1-\frac{1}{10}} = 10$$

We find that multiplier has a minimum value of one and can rise to ∞ if MPC happens to be unity. In practice however multiplier lies at a sufficiently low figure, say between 3 to 10.

While Keynes made use of the multiplier concept to show how with an initial injection of investment, income will rise by a multiple of it, and how successive savings by successive recipients of increased income will get equated to initial investment, other economists, especially Prof Samuelson and Prof Hicks made use of the concept in the explanation of trade cycles. Prof Harrod had given the concept of what is called the Super multiplier or the Relation or Accelerator, i.e., investment induced as a result of increased demand is a multiple of increased demand depending upon the capital output ratio. Prof Samuelson had found out how with varying values of multiplier and accelerator we could get varying patterns of fluctuations in income and employment in the economy. Prof Hicks went still further. He made elaborate use of the time lags. He pointed out that Keynesian multiplier was a theoretical multiplier and showed only the end result in terms of income, while in reality we must recognise the fact that there are time lags in the working of a multiplier and it is possible that before multiplier works itself out, changes in investment etc., may

take place stimulating or obstructing the movement in the income of the economy towards a particular direction. On this basis Prof. Hicks gave us an elaborate theory of trade cycles which explained turning points with the help of interaction between multiplier and acceleration.

To go into greater details, we say that the multiplier action starts when people get more income and spend a part of it. Now if the MPC is not equal to one and if over injection of new purchasing power is made only once, increase in community's income as compared with base period will gradually decrease till it is back at its original level when all the additional purchasing power has been saved. If increased demand as a result of increased income cannot be met out of existing employment of productive resources, new investment will have to be made. In other words, we can say that multiplier action takes place when there is excess capacity, and acceleration takes place when there is full-employment in the industry in question. This acceleration process by making further investment creates excess capacity and allows the multiplier (further stimulated by its own action in investment) to work further in terms of increasing real income and employment and leads to a rise in the value of the multiplier. Here the concept of optimum propensity to consume comes into the picture. Since consumption out of income is determined by the propensity to consume and since consumption and investment go to make up Y , it is necessary for the stability of the economy that people should have a particular propensity to consume which is in conformity with the values of other functions, viz., investment function and liquidity preference function. Prof. Lange explains the concept of optimum propensity to consume by pointing out that we should think of consumption function, investment function, liquidity preference function and the constant quantity of money, simultaneously in order to find out how all of them can be in mutual balance. A change in any one of them will lead to an all-round disturbance. But given the three functions and the quantity of money, an optimum propensity to consume can be found out which will keep the economy in equilibrium. The values of Y , C , and I should be so determined that $Y = C + I$, and since C is a function of Y , and I is partly a function of C , C must be such as maintains the equality between Y and $(C + I)$. If the propensity to consume is not such, this equality cannot be maintained and hence the economy cannot remain stable.

Keynes makes use of this consumption function for policy prescription also for he believes that MPC falls with rising incomes. Thus real income and employment goes on increasing so long as there is excess capacity or so long as excess capacity has been created by new investment through acceleration process. But then as Prof. Hicks explains, there is a limit to the increase of real resources in the economy in a given time and therefore the economy finds it impossible to increase its resources as quickly as ever increasing speed of multiplier-acceleration process would demand. The result is that the economy hits the full employment ceiling and acceleration process starts working downwards. Multiplier follows suit because reduced expenditure at one point will mean reduction of expenditure at all further points and as a result of this falling demand acceleration process works downwards with still greater force. The process halts because investment cannot be reduced at a rate more than the depreciation rate and the autonomous investment goes on taking place so that after some time again demand picks up and the multiplier action starts working upwards.

Thus we see that when we make use of consumption function through its manifestation in multiplier process together with acceleration process, we can explain the turning points of the trade cycles quite logically. Further, our explanation gets strengthened if we allow for the fact that with the rising incomes MPC falls and leads to a fall in the value of the multiplier, while with falling incomes MPC rises because our consumption habits are set and cannot change as rapidly as our income can. Also businessmen experience much wider fluctuations in their incomes than ordinary workers but they cannot afford to change their consumption standards unless they are sure that the income change is permanent. Again with the rising of big corporations and joint stock companies the portion of savings out of their income is increasing rapidly as their income rises. Some studies in USA have indicated that consumption as a proportion of income has remained constant for about two decades. But this means that average propensity to consume has remained constant. What Keynes was concerned with was changes in MPC over a short period and here he was right that with rising income MPC falls.

Now this falling MPC together with falling MEC prevents the economy from attaining or maintaining full-employment position. In order therefore to check the emergence of deficiency of effective

demand, Keynes suggested that steps should be taken to increase consumption and investment. Some people are of the view that Keynesian suggestions were radical as far as consumption portion goes but they were quite conservative when he came to the investment portion. Actually, this is not fully true. One should say that some of the suggestions in the investment portion also were quite radical and "uncapitalistic". However, in the consumption portion his prescription was quite novel, different from the usual socialist and underconsumptionist thinking which emphasises only redistribution of income. Keynes believed that we should artificially inject new purchasing power in the economy even if this was done without any productive work done in return by the recipients of this purchasing power. Redistribution of income in favour of wage income would help, but only within limits. It would be still better to *create* additional purchasing power through deficit financing etc., and use it for redistribution amongst the working classes through public works programmes. Curiously enough he did not suggest investment in long-term productive projects because he was dealing with economies where the problem of capital formation was not there. Increasing purchasing power by increasing demand would automatically set the existing excess productive capacity of the economy into motion and would increase income, employment and output. For this reason, therefore, he was not very particular whether new purchasing power was going to those who did any "useful" work in return for it. Unemployment relief and doles may be ethically objectionable but not economically. Or if a more dignified method of giving doles was to be chosen, ditches could be dug and filled and wages paid for them.

However, on the investment side Keynes was more conservative in suggestions because of his belief in interest-elasticity of investment. Classical economists also had believed in the interest elasticity of demand for investment. But Keynes was also fully emphasising MEC which in the time of need just did fall and decrease investment. For instance during a depression what is required is more investment so that with greater demand increased investment should turn out to be more profitable but MEC, or expected yields are low in the minds of investors with the result that they curtail their investment plan further, leading to a still greater depression. Keynes was making a conservative suggestion that a reduced rate of interest would help in the revival of investment activity, but he was also fully aware of the fact that investment may not increase simply by lowering interest rates. MEC was equally important. Government may try to

convince the investors that greater investment would mean greater profit for all, but it may not succeed. In such a case the Government is asked to start direct investment in public works programmes, which would be in the nature of increasing consumption demand leading to increased MEC. Thus we may say in a mild tone that the Keynesian suggestions on the consumption side were quite radical, while on the investment side he tried to influence investment through changes in the rate of interest and consumption in the sense that the suggestion of public works programmes was also nothing but attacking the problem from the consumption side.

POINTS TO REMEMBER

1. Consumption function is one of the four ultimate determinants of Keynesian system. In consumption, we must maintain the distinction between the consumption function as such and MPC.

2. In the classical scheme, hoarding had no place and consumption was thus interest-elastic. With Keynes it is not interest elastic.

3. Keynes used consumption function to give us the concept of multiplier which $= \frac{1}{1-MPC}$. The value of multiplier ranges from one to ∞ .

4. Prof Harrod gave us the principle of acceleration. Prof Samuelson and Hicks made use of the interaction between multiplier and acceleration to give us explanations of trade cycles. Prof Hicks specially made use of time lags and distinction between induced and autonomous investment to give a clear explanation.

5. MPC falls as income rises—though average propensity to consume may remain the same over a long period. So Keynes makes radical suggestions for increasing consumption demand by means of unemployment benefits, doles etc.

6. On the investment side, Keynes would prefer that interest manipulation should suffice to create sufficient new investment. But if it does not, he would suggest public works programmes to induce greater consumption demand and hence investment.

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13

Q. Trace the effect of investment on employment and output. (Delhi 1960)

What are the causes of the changes in the volume of investment ?

How do these changes affect employment and economic activity ? (Rajasthan 1959)

Explain how the rate of interest affects investment (W.B.C.S. 1958)

Analyse the main factors that are likely to influence the investment demand schedule in an economy and give in this connection your views about the interest-elasticity of investment (Delhi 1958)

Examine the Keynesian theory of investment with particular reference to the influence of the rate of interest. (Gujarat 1958)

Examine the grounds for, and the implications of, the statement that "the Marginal efficiency of investment is not independent of the level of income as of changes in income." (Calcutta 1957)

What are the arguments that can be advanced for and against the following propositions :

(a) Investment is a function of the level of output rather than of the rate of growth of output ;

(b) Investment plans are affected by supply of the finance and refraining from consumption provides the finance ? (Delhi 1957)

"The marginal efficiency of capital in conjunction with the rate of interest determines the amount of new investment." Discuss. (Mysore 1956)

Ans What determines the volume of investment per unit of time in a given economy is a question of greatest significance in view of the importance of investment from the angle of stability and progress. The underdeveloped economies in particular are deeply concerned with the factors that determine the total volume of investment because their very existence depends on the execution of effective measures to promote the total investment in their areas. The advanced economies, perhaps look upon investment not only as a means of promoting economic development but also as a means of stabilising or destabilising the sum total of economic activity. The Keynesian analysis of the role of investment in the context of the advanced economies of the world is more concerned with the problem of stabilising the economies at a high level of production and consumption rather than with the question of raising the backward economies from the grass roots through the process of unfailing regularity of investment. All the same, the Keynesian analysis throws a good deal of light on the general theoretical aspects which explain the process of investment.

Investment plays a vital role in the Keynesian theory of income and employment. Investment expenditure is not only a major constituent of income [Y] but also is the quantity through which expectations of the entrepreneurs are expressed in real terms. Total income $Y = C$ [Consumption] + I [Investment] and changes in either C or I bring corresponding changes in Y. It was but natural that Keynes should have given so much prominence to investment because with a change in investment, multiplier action comes into being leading to a multifold change in income over a certain period of time. However, in order to understand fully the role of investment, and to find out its full effect on income and employment in the economy, it is necessary to analyse the causes which determine the magnitude of investment.

By investment Keynes would mean new investment, when prices of shares etc are rising, so that by changing hands in the market, original investment now shows a higher monetary value, investment should not be taken to have risen correspondingly. Investment is to be considered only in terms of additional investment either in the older business or new ventures. According to the classical economists investment was determined by marginal productivity of capital and rate of interest. Marginal productivity of capital was the actual marginal yield of investment. But Keynes

was of the view that actual yield of investment emerges only when investment has been made and it has come to fruition. The investment decision is thus based not on actual yield of investment but on the expected yield and the market rate of interest. And therefore, we should think of expected yield as a determinant of investment and not the actual productivity of capital, though the actual yield does influence the expectation about prospective yield.

Keynes was, right from the beginning, of the view that expectations play a major role in economic decisions of all kinds and more especially in the case of investment decisions. Based upon expectations, he modified the classical contention that marginal productivity of capital determines investment demand. In place of marginal productivity, marginal efficiency of capital [MEC] was substituted. The idea had been suggested by Wicksell in terms of his natural rate of interest as contrasted with market rate of interest and Irving Fisher had also anticipated Keynes to a large extent. But Keynes stated the whole proposition in a clear-cut manner. The meaning of MEC in technical terms can be understood in the following manner :

Let C_r be the replacement cost of the capital equipment in question, and let $R_1, R_2, R_3, \dots, R_n$ be the series of successive returns per period (say annual) which are expected to be yielded by this investment. Then we can find a rate of discount at which, when all the future yields are discounted to their present worth, the aggregate value of these discounted yields will be equal to C_r . Let this rate of discount be r , so that we can write,

$$C_r = \frac{R_1}{1+r} + \frac{R_2}{(1+r)^2} + \frac{R_3}{(1+r)^3} + \dots + \frac{R_n}{(1+r)^n}$$

Then this r is called the marginal efficiency of capital which the investor expects to earn on investment.

Keynes maintains that this MEC, r , is to be compared with the market rate of interest to find out whether a particular investment is profitable or not. Let us suppose, for example, that the market rate of interest is i , then

$\frac{R_1}{(1+i)} + \frac{R_2}{(1+i)^2} + \frac{R_3}{(1+i)^3} + \dots + \frac{R_n}{(1+i)^n}$ will give us the value of an investment in terms of the present worth. Let this be V . Then in order that the investment should be profitable V should be greater than C_r which means that $i < r$. On the other hand if $i > r$, then V will be less than C_r making investment unprofitable by

turning investment into a less valued asset

But the above analysis is quite a simple thing and naturally not sufficiently nearer reality. For example, we must remember that different prospective yields R_1, R_2, R_n are not determined by something independently of income levels or changes in it. The peculiar thing about MEC is that when it rises, it increases investment and hence income, but increasing income means bigger future yields, i.e., bigger R 's and hence given C_r , MEC rises which in turn may lead to still higher incomes. MEC, after all, is based upon expected yields, i.e., on the values of R 's and the values of R 's are naturally influenced by changing income. Moreover, this income, to begin with, might have been changing either due to changes in consumption or investment. To bring into account the multiplier process generated by initial expenditures on consumption and investment, we must expect that once MEC starts rising, there should be nothing to stop it and once it starts falling there should be nothing to arrest it. But actually this is not the case. With increasing income the marginal propensity to consume falls leading to a less than proportionate rise in consumption and since consumption changes are a major influence upon the determination of MEC, falling marginal propensity to consume works towards a reduction in the MEC. Again, as full employment is reached, income gets redistributed more and more in favour of non wage income with the result that demand for consumption goods fails to keep pace with the total increase in demand. This again causes partial problems of effective demand and this works against MEC. Thus we see that considering income or output we have to agree that MEC is directly influenced by income.

Some people would go further than this. They would contend that the above arguments have been based upon a given C_r . Actually determination of C_r is as much subject to changes in income, and output as MEC itself. With changing income and output, factor cost of production is quite likely to undergo a change, i.e., to say there may be diminishing returns or increasing returns, or there may be technical innovations, accumulations or destruction of capital and so on. Because of all these reasons, C_r or replacement cost of investment is bound to undergo a change. However, no set rules can be given as to whether C_r will rise or fall with rising income. Probably it will be possible to state something more definite if we calculate C_r for each type of capital

equipment separately, so that rising incomes may make some investments profitable and some less profitable or even unprofitable. Moreover, expected yields cannot be visualised for more than a certain period and therefore if the investment project happens to be of a very long life, investment will be more influenced by yields in the foreseeable future only. In other words, the MEC as understood by us will fail to be fully effective. Changing rates of income and output in the present and near future are more likely to influence investment decisions than expected returns of a distant future. For this reason, some people contend that in the developed economies since there is already a high level of income and demand, therefore the possibility of yields in the distant future is not expected to be as uncertain and dim as in the case of undeveloped countries where income and output are at a low level and where they may not increase.

Further it must be noted that interest-elasticity of demand is also not a simple thing. Though both classical economists and Keynes believe that investment is sufficiently interest-elastic still it is quite doubtful if interest exerts more influence than the expected yield on investment. Often expected yields are not known or cannot be imagined beyond a certain date, but if investment is to be made, long-term contracts may have to be entered into; or at least the entrepreneur has to provide for the possibility of renewing the loan of capital and paying a different rate of interest than he is paying now. Some economists like Hawtrey put forth ideas that businessmen were so sensitive to changes in interest rate that even small changes in interest would well nigh generate trade cycles, but all this is a far fetched proposition. We, however, must recognise that interest elasticity of investment is there. The only thing is that we cannot depend upon it excessively. Small changes in interest may not be able to influence investment decisions. Further there are two limitations why interest elasticity of investment cannot be made use of for increasing investment in every emergency. The first is what Keynes calls the expectations on the part of the people that there are certain normal minimum and normal maximum rates of interest. Rate of interest is determined by the money supply and liquidity preference but the most important portion of liquidity preference (*viz.*, speculative demand for money) is determined by the expectations that rate of interest will undergo a change. The result is that when rate of interest approaches its lower "limit", people start expecting that it is going to rise and in

anticipation of capital losses on securities etc., they suddenly increase the demand for money and try to sell out securities with the result that the prices of securities fall and rate of interest rises. Just the opposite happens when speculators feel that the rate of interest is going to fall. Therefore, if the rate of interest is already near one of its "limits" and the needs of the economy dictate that it should be pushed further towards the same side, the monetary authorities are not likely to succeed because every effort of theirs is likely to be counteracted by changes in liquidity preference. Another limitation of the rate of interest as a possible tool for influencing investment is that when it has already been reduced to a sufficiently low level, the possibility of further reduction is automatically ruled out. For instance, 2% reduction from 4% would reduce the rate of interest to 2% but a 2% reduction from 2% would not reduce it to zero or make money a free commodity. For all these reasons investment, though it is supposedly very sensitive to change in the rate of interest, cannot be influenced in all cases by interest changes as there are limits to such changes.

Thus we see that investment plans are directly affected by the supply of finance which often manifests itself in the supply of money. Greater supply of money not only makes it cheaper to invest by reducing the rate of interest but also makes it easier to finance investment by making money easily accessible. Here we find a radical difference between the position of the classical economists and that of Keynesians. According to the classical economists money is only a veil and nothing but an expression of real savings and real investment as far as the analysis of output and employment goes. There a single factor, viz., rate of interest affects both the supply of savings and the demand for savings, which to them was the same thing as investment demand. But Keynes believes that savings and investment decisions are made quite independently of each other and by entirely different set of forces. It is therefore not necessary that the plans of investment and savings should give us planned savings equal to planned investment. Such a notion is the old one put forth by the classical economists only. Actually since investment decisions are made by interest and MEC and saving decisions are made by MPC there is no reason why the two decisions should give the same quantities. To find out as to how investment greater than savings may be planned, and executed, we must remember that greater investment can always be financed by credit creation and as a result, savings

will also rise so as to become equal to increased investment. Therefore, it is correct to say that investment plans are effected by the supply of finance (through changes in the rate of interest) but it is wrong to append the statement that finance is provided only through savings. There are so many sources through which finance for investment may come and savings are just one of them. In some cases savings may be quite an unimportant source as compared with the total investment finance.

Changed investment exerts a major influence on the determination of changes in income. Usually, when we start from a given position where the economy is in equilibrium position, not consumption but investment will undergo a change to bring about a change in income. Prof. Harrod, however, attributes the role of dynamic element to savings. He says that 10% income saved every year together with an investment of 10% of national income per year will not keep the economy stable, for 10% saved income will increase the total stock of the economy and thus impart it a growth stimulus. But this consideration comes when we think of long term development of an economy. During the short period, changes in investment are far more important than changes in savings, mainly because changes in savings come as a result of changes in investment. Savings are residual, says Keynes. When investment and savings are not equal, not investment but income changes to such an extent that as a result savings change to become equal to investment.

Granting, then, that investment is the leading force in the group of C and I, we find that changes in investment directly lead to changes in Y. Changed investment, however, will not increase Y only by an amount equal to investment, but through the multiplier effect multifold changes in income will take place. Prof. Hicks, in his *A Contribution to the Theory of Trade Cycle* makes use of the changes in investment at various rates and directions together with the assumption of time lags to give us a number of possible patterns which changes in income and employment will take according as investment pattern assumes a certain shape. For instance, Hicks shows, how, if we increase investment once and maintain it there year to year, the economy will not attain a new equilibrium position in one jump only; rather its income will show an increase at a falling rate till it reaches its new stationary equilibrium in conformity with higher investment and consumption and hence higher income. On the other hand if we go on increasing investment regularly by a given amount, our economy will gradually settle down to a steady

rate of growth. Similarly cyclical patterns etc., can be traced by simply changing the investment rates and directions.

Changes in investment do not end with changes in income, but will reflect back upon investment through changes in consumption demand. After all, investment is based upon MEC and when income and consumption rise a number of times by multiplier action, investment is further induced. Prof Hicks makes use of this distinction between "induced" investment and "autonomous" investment to show the vital role which each of these types of investment plays in the determination of income level. For example, when induced investment falls due to reduction in demand, it is autonomous investment which again sets the gear of the economy in the upward direction. Moreover, in conclusion we must note that changes in investment need not always lead to increased Y unless investment is being made when the economy is at less than full employment position. When once full employment is reached, money investment will not be corresponded by real investment with the result that real income, output and employment will not rise as a result of this investment and the multiplier action will only lead to increased prices. Thus as Keynes himself points out, increased investment increases income, employment and output before the economy reaches full employment, but beyond that the change is manifested only in increased prices.

The precise nature of the connection between investment on the one hand and employment and output on the other could not possibly be examined in a scientific way, unless we take into account the stage of growth that a given economy has attained already, and the techniques of production employed, along with the conditions of the market which the products have to face. Investment can be capital intensive or labour-intensive, quick yielding or slow-yielding, intelligent or unintelligent according to the condition of the market. Given the techniques, generally speaking more of investment ought to mean more of employment and output, especially in the backward countries. In the advanced countries, more of investment may mean over production leading to a glut in the market and if it is labour saving, less of employment opportunities as well.

POINTS TO REMEMBER

1 By investment here is meant new investment and it is determined by MEC and the rate of interest. MEC is based upon expectations and is quite different from marginal productivity of capital.

2. But though for investment i and r are to be compared, we must note that R_1, R_2, R_n are also not given quantities. These depend upon income, employment, consumption, investment and so many other factors. Similarly, C_t is also not independent of the level of income or changes in it.

3. Interest-elasticity of investment has its own limitations in the form of stickiness of interest rates and the reduced possibility of further reduction in interest rates beyond a limit. Liquidity preference may change with changing interest rates.

4. Though cheaper finance helps investment, investment is not limited by it, as finance can be provided by credit creation. Further, savings are just one source from which finance for investment may be coming.

5. Investment, savings and income have a complicated inter-connection and they act and react upon one another. Till full employment investment increases income and employment but beyond that only prices rise.

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14

Q. Examine the effects of technical progress on employment and wages. (Bombay 1962)

Ans. The consequences of technical progress on employment and wages could be examined on the basis of the period of time involved during which the consequences work themselves out to their culmination. Broadly, we can divide the time into two periods, namely, the short period in which technical progress leaves its imme-

mediate impact and the long period over which the consequences reach their logical conclusion. The nature of the consequences whether in the short or the long period would depend on what technical progress implies in the field of production with regard to the size of investment, utilisation of natural resources, the investment-employment ratio, the investment output ratio, the marginal productivity of labour, the size of the national income, the demand for goods and services in the general and the growth of the labour force in course of time. In one word, it must be realised that technical progress influences each and every branch of economic activity and, therefore, the consequences can be seen fully only when a sufficient period of time is allowed to pass to allow the impact to be felt over the whole economy.

Technical progress started in the history of mankind right from the beginning of civilization and ever since, such big strides have been taken in perfecting the scientific techniques whether for construction or for destruction that today technology is the surest symbol of the progress that a country has been able to achieve. The economic history of the advanced economies provided ample evidence to prove the nature of the consequences that follow technical progress and we can pick up the relevant consequences with regard to employment and wages, before turning to deductive analysis on certain assumptions. What has actually happened to employment and wages in those countries which have already achieved a big technical progress? There is no disputing the fact that the consequences have been by and large favourable from the view-point of employment and wages excepting during periods of depression which in no way could be attributed to technical progress itself, unless it be a far fetched reason. If one takes a long historical view of things one cannot but be struck by the phenomenon that technical progress has been responsible for providing employment opportunities to so many workers at such a high level of wages. The comforts that the workers in the advanced economies enjoy today could as well be the envy of the manorial lords of the mediaeval years. In many of the advanced economies, there is such a chronic shortage of labour that there is a continuous effort to devise labour saving devices. The wage rates keep on rising and the workers are no longer the slaves that they once used to be. There is job-security, healthy work surroundings, limited hours of work, assured promotions, leave and accident benefit according to prescribed rules, gratuity, bonus, maternity benefit for female

workers and old age benefit for every worker. This revolution in the conditions of living of the workers in the advanced countries of the world could never have been achieved but for technical progress. In contrast with this we find the miserable conditions of the workers in the technically backward economies which are so steeply involved in acute conditions of poverty. Technological backwardness is synonymous with economic backwardness and no backward economy can really afford to provide adequate employment opportunities to a labour-force that always keeps on growing faster than the increase in the opportunities for employment. It must clearly be realised that the lack of employment opportunities in the over-populated backward economies is mainly due to a lack of technical progress which creates the vicious circle of poverty, unemployment, low wages, low production, low income, low investment etc. If the workers in the advanced countries are better off, it is due to technical progress and if the workers in the backward economies are miserable, it is due to a lack of technical progress. The condition seems to be warranted that technical progress is a necessary condition for the increase in the employment opportunities and betterment of wages over a long period of time. The impact of technical progress would be certainly beneficial if a good period of time be allowed for the consequences to work themselves out. A net increase in the national income to provide adequate wages to a growing labour-force would be impossible of achievement but for technical progress.

Historically technical progress has invariably taken the form of capital-intensive method of production in the place of the labour-intensive methods of the pre-technical era. The new tools and equipment forged by scientific knowledge require the investment of a good deal of labour to produce the means of production. Technical progress necessarily implies a great improvement in the demand for making capital goods. Mining and metallurgy, machine tools, making of machines proper to be directly employed, heavy chemicals and electrical goods etc. constitute the basis for the expansion of capital goods industries and hence, employment opportunities for skilled as well as unskilled labour must increase enormously concomitant with technical progress. Capital-intensity of production which is characteristic of production with the help of modern equipments necessarily entails, however, a certain amount of labour displacement due to automation of the productive processes which otherwise would have been done with more of labour and less of

capital Increase in demand for labour in the capital-goods industries which accompanies technical progress is partly offset by labour-displacing automatic method of production Better techniques of production which are usually employed in the process of rationalisation lead immediately to a certain displacement of labour and that is the reason why the workers resist the introduction of better techniques of production This should not, however, lead us wrongly to the conclusion that technical progress is responsible for the creation of unemployment That conclusion would be wrong, based as it is on partial evidence In order to assess the consequences of technical progress in terms of employment we must take into account the consequences on the entire economy and not merely on certain specific occupations that undergo technical progress Labour-displacement in some industries is usually accompanied by increased job opportunities elsewhere and hence, the net effect of technical progress could be assessed only when both the sides are fully taken into account Certainly frictions and technical structural adjustment difficulties do not warrant the conclusion that technical progress leads to the creation of unemployment

In fact technical progress brings about an improvement in the marginal productivity of labour and thus, the total demand for labour is likely to improve when the wage-rate does not run ahead of the marginal productivity of labour Technical progress brings about a big increase in the total output of the community and hence, the capacity to save undergoes a radical improvement Given the capacity to save and an assured demand because of the rise in the income of the buyers, there is a big incentive to exploit the favourable market conditions In the early stages of growth the income elasticity of demand is always positive and hence, a rise in the income which follows technical progress brings about a rise in demand and, therefore, the prices increase and cause a further improvement in the marginal productivity of labour

With an improvement in the marginal productivity of labour, the wage rates must rise sooner or later It is not because the employers show a generosity but because the employers find it difficult to resist the claims of the workers for better wages due to the increase in the bargaining strength of labour on account of an all round increase in the demand for labour which is characteristic of a growing economy Technical progress has never been responsible for the depression of wages. Investment, employment, wages and

technical progress are closely inter-connected and there is no reason to deny the belief that it is technical progress which has brought about a big increase in the real wages of the workers. Even the control of the growth of the labour-force clearly depends on technical progress in the relevant field.

POINTS TO REMEMBER

1. In order to assess the impact of technical progress on employment and wages, it is necessary to know the period involved as also the sum total of the consequences in the whole economy, besides the effects in the fields in which better techniques are directly introduced.

2. The consequences could be examined either in the inductive or the deductive kind of way.

3. We can see the consequences in the countries in which a lot of technical progress has already been achieved. It is clear beyond any doubt that employment and wages are favourably influenced.

4. The demand for labour to make capital-goods increases with technical progress, though the demand for labour in rationalised industries declines.

5. Technical progress brings about an improvement in the marginal productivity of labour and hence, demand for labour is likely to increase.

6. Increased output makes possible better savings and better demand gives a better incentive and hence, there is a greater investment and employment.

7. Wages rise with technical progress. The disturbances are only of a short-term nature.

15

Q. "One who tries to save destroys real capital." Examine the validity of the statement. (Karnatak 1960)

"Saving is private virtue but a public vice." Discuss. (Karnatak, 1959)

Ans. Prior to the advent of the Keynesian school of thought, it was presumed in accordance with the assumptions of micro economic analysis that saving is an unquestionable virtue. Hard work, maximum of earnings, thrift and minimum of expenditure on consumption were extolled by the puritans to be the highest of virtues. Max Weber gives a vivid description of the concept of economic morality practised by the puritans after the Reformation in Western Europe (Max Weber, *Protestant Ethics and the Rise of Capitalism*). Everyone was advised to be as industrious as possible in his own calling and accumulate a fortune by maximising earning and minimising expenditure. The belief in the virtue of savings remained totally unquestioned till the appearance of the *General Theory* of Keynes in the year 1936, which departed sharply from the traditional mode of analysis. Keynes arrived at a conclusion exactly contrary to the one that was universally accepted in his times because of the generality of his theory which was founded on macro economic analysis. The conclusions deduced from micro economic analysis lead us many a time to utter absurdity from the angle of the society as a whole. The controversy regarding saving is an illustration in point.

Saving as a private virtue does not need much of an explanation. Every individual does possess some instinctive fear of insecurity for the morrow and hence, would like to assure himself in advance that sufficient care is exercised to make the future as secure as possible. The man that indulges in reckless expenditure is likely to land himself into trouble when his resources get exhausted. Everyone is, therefore, well advised to save for the rainy day. Apart from a positive care for the future, saving naturally emerges as a virtue when one condemns all expenditure beyond the barest minimum on grounds of puritanism. If earning be a great virtue and spending a vice, saving automatically emerges as a virtue. This was the religious injunction that was pointed out by Max Weber and he argues, it was this attitude that was responsible for the accumulation of investible funds for investment to make possible the rise of capitalism. Saving was, therefore, held to be an implicit virtue. All this analysis was obviously made purely from the angle of the individual and the implications of saving from the social angle were utterly neglected.

The Keynesian departure from the accepted mode of reasoning starts from the proposition that one man's expenditure is another

man's income. What is expenditure from one angle becomes income from another. The people who spend and the people who receive stand at two opposite ends—the spender's expenditure becoming the receiver's income. It is the appreciation of this vital relationship between expenditure and income in the context of a society with a network of exchange relations that brings to light the full implications of the act of spending and not-spending. Saving as defined by Keynes is the excess of income over expenditure for consumption purposes. In other words, saving is the residue that remains after meeting one's consumption requirements out of a given income. Given the size of the individual's income, more of savings could be realised only by curtailing consumption. The precise point at issue is whether curtailment of consumption could be regarded a virtue. The pre-Keynesian line of reasoning regards a cut in consumption to the barest minimum as something highly desirable partly on religious and partly on pseudo-economic grounds. We have to examine this particular point from the social angle on a macro-basis as done by Keynes with a view to assess the implications of a general curtailment of consumption pursued by the members of the community in view of the virtuosity of saving as against expenditure.

A general curtailment of consumption by the community as a whole would obviously imply a cut in the demand for consumer's goods. A restraint on consumption must, therefore, create a deficiency of demand for consumer's goods producing adverse effects on the prices of consumer's goods and income of their producers. A depression of demand for consumer's goods would mean not only less of income for the producers of these goods but also less of demand for the producer's goods that are required to produce the consumer's goods. The demand for producer's goods is a derived demand in the sense that these goods are not required directly for their own sake but are demanded because of the demand for consumer's goods, for the production of which they are required. A deficiency of demand for the producer's goods would depress the incomes of the producers of these commodities and hence, the consumption demand of those employed in the producer's goods industries would also register a fall. Thus a general reduction in consumption because of the belief in the virtue of saving would bring about a general deficiency of demand, leading to a considerable fall in production, a shrinkage of the national income and a low level of equilibrium because of the folly of saving. Saving, which

is a private virtue (if over done, it ceases to be a virtue even from the purely private interests), becomes a public vice because of the influence of saving in reducing the national income, when savings are kept idle. Income, savings and consumption are closely interconnected and whether saving is a virtue or a vice has to be determined on the basis of the effect of saving on income. Savings that are hoarded certainly reduce the size of the national income and hence, hoardings are certainly a vice, during normal times (Hoardings during war times serve a useful purpose in the sense that to the extent of the value of the hoardings, inflationary pressures are held under check. In fact, the actual influence of hoardings is likely to exceed their statistical value in view of the multiplier effects of spending which otherwise would have been produced). What is a vice actually is not the act of saving but the act of hoarding. Saving which is supposed to be a private virtue could also serve a good purpose if only savings be embodied in investment—in the creation of real capital assets. It is the idle savings that stand to blame and not the savings that are productively used for the creation of investment goods. One who tries to save destroys real capital only if one is unwise enough to hoard one's savings and not make them available for investment. In fact, no economic progress could ever be made without saving and investment being undertaken on a large scale. Savings that are matched by the creation of real capital assets lie at the root of economic development, especially so in early stages of economic growth. A diversion of resources from consumption to investment is the very basis of progress and the stand taken by Marshall in this connection applies especially to the underdeveloped economies which stand badly in need of the creation of capital assets. The Keynesian analysis is obviously made from the angle of economies which possess almost a surfeit of capital equipment and which, therefore, are mainly bothered about the constant utilisation of capital which depends on the perenniality of demand. The *virtuosity or otherwise of savings* cannot be decided unless one considers the relationship between consumption, savings, investment and the national income. Whether it is a virtue or a vice depends entirely on the influence of saving on the national income which in turn depends on the relationship between savings and investment. Unless we know what happens to investment, we cannot pronounce a judgment on savings.

It is pertinent to ask as to how the advanced countries of the world have been able to accumulate enormous capital, especially, in the wake of the Industrial Revolution. In the early stages of their economic growth the currently advanced countries could never have directed their disposal of income on the basis of the principle "one who tries to save destroys real capital". If this dictum were to be strictly applied when the total produce per capita used to be extremely small in the pre-industrial stages of growth of the developed economies, there would never have emerged anything like an investible surplus to be embodied in capital equipment. Saving is really that which remains after satisfying basic human requirements to maintain labour in state of excellent health and efficiency. With the emergence of savings certain men are released from the obligation to devote their time to the production of the articles of immediate and urgent consumption. Savings, first of all, create free time for a certain number of workers which depends on the volume of savings. Men who have free time because of the accumulation of savings to support them out of the work for an immediate living may either spend their time in laxness as do most of the rentiers or, devote labour-time, thus begotten, to the construction of capital equipment which would enhance their productive power at a later stage. Saving is thus a vital condition to the construction of capital in the initial stages of growth in order to enable the economy to arrive at the stage of "take off". In the early stages of capitalism capital accumulates out of the savings created by the depression of wages to the level of a bare subsistence for the workers and the inflation of profits which also are not to be wasted in the conspicuous consumption of the wealthy. The workers consume little because their wages are low and the entrepreneurs consume moderately under their religious injunctions since indulgence is supposed to be bad vulgarity. There is further craze for productive investment. More or less the same thing happens under communism. For workers, wages do remain low and conspicuous consumption is ruled out because of state-control. Saving is, therefore, a necessary condition for accumulation of capital.

The dictum that to save is to destroy real capital is an outcome of the position that obtains at an advanced stage of economic development when there is a surfeit of productive capacity, already built up in the economy. Capital, once built up has to be kept

working and to keep capital working, the produce must be sold at a reasonable profit. The buyers can lift the produce only if they spend—not save. In this sense alone the Keynesian statement has some meaning.

POINTS TO REMEMBER

- 1 *Saving was supposed to be an unquestionable virtue on the basis of wrong micro economic analysis*
- 2 *Max Weber extolled the role of savings as the chief prime-motive for the initiation of the process of capitalist development*
- 3 *The Keynesian Revolution departs sharply from the traditional view-point. One man's expenditure is another man's income*
- 4 *The relationship between savings, spending for consumption and investment was closely examined by Keynes*
- 5 *The general effect of a curtailment of consumption would be the creation of a general deficiency of demand*
- 6 *It is idle savings that are to blame not those utilised for purposes of investment*

SELECT READINGS

- 1 Keynes *General Theory*
- 2 Halm *Money*
- 3 Robertson *Money*
- 4 Crowther *An Outline of Money*

16

Q State Keynes' views on the equality of savings and investment and show whether they would necessarily be equal under macro dynamic conditions (Allahabad 1960)

"Savings and investment are equated by variations in the level of income"

"Savings and investment are equated by variations in the rate of interest" Discuss (Gauhati 1959)

In what sense must savings and investment be always

equal? Has such equality any relevance in the determination of monetary policy?

'Savings and investment are always equal.' 'Savings and investment are equal only in equilibrium.' Do you think there is a possibility of reconciling these two statements?

In the light of the Keynesian definitions, consider how far the equality between savings and investment in equilibrium is meaningless. (Allahabad 1958)

Show how, according to Keynes, an economy can attain stable equality between savings and investment in equilibrium.

"The so-called equality between saving and investment is meaningless." Discuss. (Delhi 1956)

Ans. The Keynesian analysis of the relationship between savings and investment is an important land-mark in the course of evolution of his general theory about employment, interest and money and especially in the process of efflorescence of his thought about the causes that determine the total volume of investment and output. Partial micro-reasoning done about the causes and consequences of saving and investment in the pre-Keynesian era could not obviously strike the heart of the problem due to a confused state of analysis which could not properly assign a central role to the influence of savings and investment on the size of the national income. The uniqueness of the general theory in connection with the analysis of the relationship between savings and investment lies in bringing to light the precise influence on income produced by the process of savings and investment. The integration of the various threads into a single well-knit scheme is the speciality of the Keynesian mode of thought.

The savings-investment controversy has been very much alive in economic literature of quite a number of years, especially because of the fact that Keynes in his *Treatise* had stated that savings and investment can be different while in *General Theory* he maintained that they must necessarily be equal. Actually, if we come to analyse the problem we find that the real differences lie in the definitions adopted and not in any defects of logic. People who quarrel with the definitions given by others do so mainly on the basis of the usefulness of the definitions put forth.

Briefly speaking we say that whether savings $[S]$ = investment $[I]$ or not depends upon how we define the two. For instance if we say that income $[Y]$ is earned by consumption expenditure $[C]$ and investment expenditure $[I]$ so that $Y = C + I$ and Y earned is either saved or consumed so that $Y = C + S$, then necessarily $S = I$ if the act of consumption in the first equation is the same as the act of consumption in the second equation. In other words, we say that an act of consumption by creating consumption expenditure is on the one hand generating income and on the other if we say that by that very consumption act we are consuming away a part of the income which is being created, then C in both the equations $Y = C + I$ and $Y = C + S$ must be the same. By the same logic whatever income is being generated through the process of I is not being consumed and hence is being saved and hence $S = I$.

It is quite clear that the above equality between S and I is being obtained by a peculiar logic, viz., that the act of generation and utilisation of the income is the same. Naturally such a definition leading to equality between S and I pertains to an *ex post* definition— S and I covering a certain period of time however small or long it may be. Further in this definition, the moment an expenditure takes place it becomes a part of income and is hence, either being consumed up or saved and naturally if this expenditure is coming from consumption expenditure it is being consumed up, if not it is being saved. Under such circumstances we could not get anything other than equality between S and I . We can also say that whenever investment expenditure rises, that very moment Y increases by an equivalent amount and that increased Y has to be held and owned by someone or the other. If the recipient of that Y spends it still further, it must create an equivalent additional income and be held by someone else. Thus the very fact that any expenditure made must be received by somebody necessitates that it become a part of Y and hence add up to either C or S . We must recall here that this equality of S and I is following because of peculiar definition of Y which is being adopted by Keynes in his *General Theory*.

In the *Treatise*, however, Keynes had adopted a different definition of Y and therefore, could maintain that S and I can be different. There all receipts do not form part of Y . Abnormal profits or losses are neither to be added to income nor are they to be

subtracted from it. For this reason Keynes could state that when I rises, the only result is that total expenditure is more, so that profits $[Q]$ rise. Since savings are coming out of normal income, the result is that $I > S$ by an amount equal to additional investment or profits Q . Similarly if investment falls, abnormal losses take place and lead to a situation where $S > I$. Keynes was excluding occurrence of abnormal profits or losses from the income accounts to show the effect of changing investment on prices. His main purpose was to find out the way prices of consumption goods and capital goods get determined and fluctuate with changing investment leading to abnormal profits or losses.

Thus for Keynes possibility of inequality of S and I in the *Treatise* was useful because it could help in the explanation of fluctuations in prices. In his *General Theory*, on the other hand, the definitions adopted were of greater significance because there his purpose was not to discuss changes in prices but rather to eliminate them for finding out changes in real income and output. The question arises whether Keynes succeeded in his mission. We find that equality of S and I in fact gives us no help in the causal analysis of fluctuations in income. What definitions of *General Theory* do is to eliminate the possibility of artificial change in the expression of income and employment caused by changes in monetary values. (In the *Treatise* his purpose was to analyse these monetary causes which bring monetary changes in terms of prices, profits etc., and so we find the possibility of inequality between S and I) The real causes of fluctuations in income and employment are found in the four ultimate determinants of the economic system. Rate of interest gets determined by money supply and liquidity preference, investment by rate of interest and marginal efficiency of capital, and consumption by consumption function. Saving and investment in *General Theory* are not the determinants but the determinates of the system. And to facilitate the analysis of income and employment changes they have been assumed equal. Keynes says that if the savings are a residual following Y and consumption in the system, changes in I lead to changes in Y in such a way that savings become equal to investment.

Prof. Robertson had advanced quite different set of definitions of S and I by which their equality was not supposed to be used to give us changes in prices and emergence of abnormal profits or losses.

only but rather changes in the income as such Prof Robertson says that instead of assuming that an act of consumption for example is to be viewed both as generating Y and spending on consumption out of that generated income, we should make the realistic assumption that it takes time to spend a part of the income which is being earned Accordingly, he says that we can divide time into small periods in such a way that income earned in one period cannot be spent in that period but becomes available for disposal in the next period The calendar length of this period is of little significance, and may vary from economy to economy But given the length of this period which may be called a day, Robertson says that income earned in a day I is the result of the expenditure on C and I in day I but S and consumption expenditure during day I was coming out of the income earned during day 0 Thus while in day 1 , disposable income earned in day 0 was divided into C and S , income earned during day I (which is to become disposable income of day 2) is equal to $C+I$ Thus obviously disposable income of day 1 will be \leq disposable income of day 2 according as in day 1 , $I \leq S$ Prof Robertson maintains that this distinction between earned and disposable income enables us to trace changes in income from period to period He also maintains that this distinction not only helps us in tracing out changes in income but also enables us to find out, broadly, whether any forced savings or dissavings are taking place For instance, with rising I , and given S the result may be just rising prices and rising money income only if the process is not accompanied by increase in real output

On the face of it, Prof Robertson's approach looks more impressive as it purports to give us an explanation of both fluctuations in income *as well as* prices Further by varying the time interval between different "days" or by varying the lengths of the "days" for different sectors of the economy it may be possible to weave out intricate patterns in which the fluctuations in incomes and price of an economy will take place But in reality Robertsonian analysis does not help much just as Keynesian analysis does not In Robertson we do not find any reason why I should be greater than S or *vice versa*, we do not know what should cause such a change and in what direction this change should be expected to take place in the next period If it is maintained that changes in I and S in the coming periods will depend upon prices and incomes then we

have to find out the causal relations between incomes and consumption and prices and investment decisions. In other words, we are required to go into causes which determine investment and consumption decisions and that is what Keynes is doing in his *General Theory*, and Keynes certainly does it more systematically and more successfully. It is, therefore, not to say that Keynes' equality between S and I is meaningless. It has its own place and is not to be dislodged by any substitute.

However, a thumping distinction between the *ex-ante* and *ex-post* concepts of S and I has come from the Swedish economists and is very helpful if incorporated in the Keynesian system not only in understanding what exactly Keynesian equality of S and I means but also in finding out the real limitation of such an assumption of equality. According to this distinction between *ex-ante* and *ex-post* S and I , we should distinguish between what we plan to save and invest and what we actually save and invest. Our plans to save and invest are based upon our investment and savings schedules showing various amounts of savings and investment at different levels of incomes, prices etc. However, in the *ex-post* sense I and S must be equal for they cannot be otherwise. Now if planned savings and planned investment are not equal then changes in income will take place. For example when with a given rate of interest, income etc., people want to invest more than they plan to save, the result will be that bigger investment as compared with savings will lead to increased income (and naturally out of that increased income increased savings will be made). On the other hand if people want to invest less than they want to save, smaller investment will take place ; but smaller investment will lead to reduced income hence reduced savings. It was for this reason that Keynes could also state at one place that S is always equal to I and at another that when I rises, Y rises in such a way that S rises to become equal to I . It is to be noted that this distinction between *ex-ante* and *ex-post* concept of S and I opened up an entirely new vista of analysis of fluctuations in income and employment. In Hicks, for example, we find the incorporation of a variety of time lags in conjunction with different patterns of investment leading to different patterns of fluctuations in income of the economy. It is with the help of a distinction between planned S and planned I and the acceptance of their inevitable *post-facto* equality that helps us in an

elaborate analysis of trade cycles. Of course, just this distinction is not sufficient, problems of capital output ratio, the effect of changing demand and consumption on investment decisions, the distinction between induced and autonomous investment, the distinction between investment in working and fixed capital and a host of other things are needed for a complete analysis of trade cycle but this does not in any way minimise the importance of this distinction. Thus we can say that Keynes' equality between S and I, provided we kept in mind the distinction between *ex ante* and *ex-post* concepts of these, is not at all a meaningless thing but a necessary and useful thing in the explanation of fluctuations in income and employment in a free enterprise economy.

In conclusion we can say that this equality between S and I does not mean that the economy is stable. In Robertsonian system the economy will be stable if S and I are equal but not necessarily in Keynesian general theory system, since in Keynes' *General Theory* equality between S and I follows from the definitions adopted by him. In Keynesian *General Theory*, it is not the equality between S and I which is needed to stabilise the economy but the controlling of consumption and investment decisions. In the *Treatise*, however, definitions of S and I were designed to help in the analysis of prices. Therefore, it follows as far as price stability goes, equality of S and I of the *Treatise* is of special significance for the monetary policy, because by keeping $S=I$ it will be possible to avoid price fluctuations. But when we come to the maintenance of income stability in the economy, we find that equality between S and I (of the *General Theory*) does not suggest any action for the monetary authorities. Rather we have to search for the determinants of investment and consumption to find out the role of rate of interest etc., in order to make the analysis helpful for the monetary authorities. According to the *General Theory*, the monetary authorities should try to regulate the rate of interest in such a way that investment is regulated through it and at the same time the monetary authorities should try to provide extra purchasing power through deficit financing etc. in order to stimulate demand and consumption in the economy. It must be noted that deficit financing does not make a net addition to the total savings of the community. It is just a way of augmenting the purchasing power at the disposal of public authorities. Given a certain stock of real income during a

certain period of time, the exercise of more of purchasing power by the public authorities could only lead to a shortage of things in the market resulting in a rise in their prices. A stimulus is given to the entrepreneurs to undertake further investment so as to raise the flow of income during the subsequent period. Deficit financing brings about a reorganisation in the pattern of allocation of income within the limitations of real resources and savings increase only in the sense of a diversion of resources for investment. Investment in one period can in this sense be more than 'savings' in the equivalent period immediately preceding.

POINTS TO REMEMBER

1. Whether $S=I$ or not depends upon what we mean by the two concepts. We should, therefore, try to look at the usefulness of the definitions of S and I rather than at their equality.
2. In Keynes' 'General Theory' by definition $S=I$ because $Y=C+I$ and $Y=C+S$; C entering into both equations in a common way and by a single act on the part of the consumers.
3. In the 'Treatise', however, abnormal profits and losses are excluded from income out of which S is to come and hence there I and S can be unequal leading to profits (or losses) and change in prices.
4. In the 'General Theory' Keynes wanted to analyse changes in income and we are to see how far the definitions of S and I helped him.
5. Prof. Robertson introduced the difference between earned income and disposable income leading to possible inequality between S and I and changes in disposable income from period to period. But he failed to give us a complete causal analysis as to why investment should be different from S .
6. Keynes just assumes $S=I$ and tries to locate the causes of fluctuations in income in the psychological functions and the quantity of money. And if we introduce the ex-ante and ex-post distinction of S and I we get an admirable result. Inequality between ex-ante S and I will change income but ex post S and I must be equal.
7. For monetary policy, from Treatise we find that S should be kept equal to I to keep the price levels stable. In the General Theory $S=I$ has no meaning for stability. There investment and consumption decisions should be controlled. The only monetary action suggested is increasing purchasing power, money supply and reduction of interest rate.

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17

Q Examine the various concepts of the multiplier. Discuss the applicability of the Keynesian theory of the multiplier to an underdeveloped economy (Gujarat 1959)

Discuss the theory of the multiplier, with special attention to the leakages and the factors which interfere with its working in underdeveloped countries (Punjab 1958)

Ans The conception of the "multiplier" was introduced for the first time into economic analysis by Prof R F Kahn¹. In his concept of "employment multiplier" he envisaged a relationship between the primary employment created by a piece of investment and the *increment* in aggregate employment. As he has put it, "It measures the ratio of the increment of total employment which is associated with a given increment of primary employment in the investment industries". For example, let us suppose an investment of Rs 7000 is made on the construction of an irrigation dam, Rs. 2000 of which is spent upon capital equipment and the remaining Rs 5000 upon labour. Let us further suppose 50 labourers are employed—this represents the primary employment. But the process of employment creation does not end with this. Let us suppose 90% of the wage-income, i.e., Rs 4500 is spent by the labourers upon consumption goods. The expenditure is equivalent to an

¹ The Relation of Home Investment to Unemployment, *Economic Journal*, June 1931

investment in the consumption goods industry which creates further employment and thus the process goes on. Suppose at the end of the process the piece of investment creates an aggregate employment of 200, then the employment multiplier is $\frac{200}{50} = 4$.

Symbolically, if a given investment ΔI leads to a primary employment of ΔM , total employment of ΔT and K be the employment multiplier, then $\Delta T = K \cdot \Delta M$.

The concept of the multiplier has been borrowed by Keynes from Kahn and has been incorporated into the *General Theory*. The Keynesian multiplier is different from the Kahn's employment multiplier. The Keynesian concept is known as the "investment multiplier" which represents a relationship between an increment of investment and the resulting increment of income.

Symbolically, if ΔI be the increment of investment (also called the "multiplicand"), ΔY the increment of income and K the investment multiplier, then $\Delta Y = K \cdot \Delta I$.

There is a functional relationship between the investment multiplier and the marginal propensity to consume and save.

We know that¹ if ΔY be the aggregate income, ΔC , consumption and ΔI , investment, then

$$\begin{aligned} \Delta Y &= \Delta C + \Delta I \\ \text{or} \quad \frac{\Delta Y}{\Delta Y} &= \frac{\Delta C}{\Delta Y} + \frac{\Delta I}{\Delta Y} \\ \text{or} \quad 1 &= \frac{\Delta C}{\Delta Y} + \frac{\Delta I}{\Delta Y} \\ \text{or} \quad \frac{\Delta I}{\Delta Y} &= 1 - \frac{\Delta C}{\Delta Y} \\ \text{or} \quad \frac{\Delta Y}{\Delta I} &= K = \frac{1}{1 - \frac{\Delta C}{\Delta Y}} \end{aligned}$$

where $\frac{\Delta C}{\Delta Y}$ is the marginal propensity to consume and $1 - \frac{\Delta C}{\Delta Y}$ is the marginal propensity to save. The multiplier is thus the reciprocal of the marginal propensity to save.

In recent times another concept of multiplier has been evolved namely, "foreign trade multiplier." If the marginal propensity to save is s and the marginal propensity to import is m (i.e., increment of expenditure on imports to increase in income), then the foreign

1. Keynes, J.M.—*General Theory*, p 115

trade multiplier $F = \frac{1}{s+m}$ For instance if $s = \frac{1}{2}$ (i.e., $\frac{1}{2}$ of the increment of income is saved) and $m = \frac{1}{2}$ (i.e., $\frac{1}{2}$ of the increment of income is spent on imports),

$$F = \frac{1}{\frac{1}{2} + \frac{1}{2}} = 2$$

The multiplier does not always operate automatically and smoothly. Neither does the income always increase by the full value of the multiplier. There are certain offsetting factors which have to be taken into account in estimating the net increase in income as a result of an increment of investment. First, a net increase in public investment may be nullified by the diminished private investment. For instance, the method of financing the public investment may raise the rate of interest and thus retard private investment. Secondly, an increase in public investment may raise the prices of capital goods and thus affect private investment. Besides these there are "leakages" which may interfere with the smooth operation of the multiplier process and slow down the pace of the multiplier. The following are the possible leakages in the multiplier.

- 1 The part of income that is saved in the form of idle bank deposits
- 2 The part of the increment of income that is used to pay off debts
- 3 The part that is invested in securities purchased from others who fail to spend the proceeds
- 4 The part that is spent on imports which do not help home employment
- 5 The part that is devoted to the purchase of output supplied from excess stocks which may not be replaced. This is the "negative investment" or disinvestment.

The Keynesian investment multiplier as discussed above is a purely static concept. The most serious weakness of this concept is that it abstracts itself from the "time-element" and presumes all changes to happen simultaneously and instantaneously. But in the real world, the adjustments in income and employment do not take place instantaneously but only after an interval of time the length of which depends upon various institutional, technical and structural rigidities and bottlenecks.

Recently the concept of the multiplier has been given a *dynamic* form by Prof. J.R. Hicks¹ by introducing "time-lags" in the concept. In this dynamic theory of the multiplier, saving is not considered as a function of the current income but that of the income of the preceding period. In other words, saving is the difference between the income of the preceding period and consumption of the current period. Among the various lags which interfere with the working of the multiplier mechanism, the two types of lags are of utmost significance. First, the lag between the increase in consumption and increase in production. The length of this type of lag depends upon such technical factors as the availability of raw materials, working capital, transport and communications, capital equipment and also upon the psychology of the business community and its response to increase in sales. Secondly, the lag between the receipt and disbursal of income. The length of this type of lag depends among other things upon the spending habits and the attitudes of the recipients of new incomes towards savings.

How far is the Keynesian multiplier theory applicable to the underdeveloped country?

The Keynesian multiplier theory is based on certain implicit assumptions. In the first place, Keynes assumes the existence of *involuntary* unemployment. As Keynes has defined the term, "Men are involuntarily unemployed if, in the event of a small rise in the price of wage-goods relatively to the money-wage, both the aggregate supply of labour willing to work for the current money-wage and the aggregate demand for it at that wage would be greater than the existing volume of employment."² In other words, the presence of involuntary unemployment means that being under the "money illusion" labourers are prepared to accept a lower *real* wage although they may resist a cut in money-wage. This crucial assumption underlying the Keynesian multiplier does not hold good in the underdeveloped country. The nature of unemployment in the underdeveloped country is completely different from involuntary unemployment peculiar to the advanced industrial country. The type of unemployment characteristic of the underdeveloped country is known as *disguised* unemployment which does not make room for any substan-

1. Hicks, J.R.—*A Contribution to the Theory of Trade Cycle*, Ch. 2.
2. Keynes, J.M.—*Op. cit.*, p. 15.

tial cut in real wages. In the underdeveloped country, the *real* wage even in the urban sector, not to speak of the rural sector is around the bare minimum necessary for physical existence.

Another crucial assumption underlying the Keynesian multiplier is the existence of excess capacity in capital equipment. But as is well known one of the fundamental factors holding up the pace of economic development in the underdeveloped country is the scarcity of capital and capital equipment. In the absence of excess capacity in the capital equipment, an increase in investment merely leads to inflation of incomes and prices without increasing output or real income to the corresponding degree.

Let us examine more closely the nature and causes of the various time lags and bottlenecks which are likely to interfere with the multiplier process in the underdeveloped economy. An increment of investment leads in the first instance to an increase in output and employment. The next increase according to the multiplier theory ought to come from consumption goods industry. In a typical underdeveloped country, the chief consumption industry to which the additional demand would presumably be directed is agricultural foodgrains. But agriculture all over the world is an industry where for technical reasons the supply curve is inelastic over the short period. This is more so in a predominantly agricultural underdeveloped country. It is an observed phenomenon that the supply curve of foodgrains in the underdeveloped country is not only inelastic but over a certain price range it tends to be *backward sloping*. This is explained by the fact that as the income of the agriculturists rises, their propensity to consume also increases. As foodgrains constitute the main item of their consumption, they consume more of their output than before. This leads to a reduction in the *marketed surplus* of foodgrains. This means in turn that the non agricultural sector now has to pay still higher prices for its foodgrains and raw materials, the industrial wages and with them prices begin to rise resulting in a vicious spiral of inflation.

Apart from these reasons, the agricultural producer is rather reluctant to act in the way postulated for entrepreneurs by Keynes in response to increased demand. In the underdeveloped agricultural

1 United Nations—*Measures for Economic Development of the Underdeveloped Countries*, p. 42.

sector of the underdeveloped country production is more for self-consumption than for the market and a substantial part of the business does not come under money transaction at all. A given increase in demand consequent upon an increment of investment does not result in output of the corresponding order.

One may expect that the position would be different in the industrial sector. But even here the time-lags and bottlenecks of similar nature prevent output and employment from increasing to any substantial extent. The basic reasons here are the absence of excess capacity in the equipment, non-availability of working capital, scarcity of skilled labour and technical personnel and various other bottlenecks and rigidities characteristic of a shortage-dominated economy.

The net result of the various time-lags and structural rigidities, and bottlenecks is that, the investment multiplier is much higher in terms of money income than real income and to that extent inflationary pressure is generated.

POINTS TO REMEMBER

1. *We may distinguish three different concepts of "multiplier" namely.*

- (a) *Employment multiplier ;*
- (b) *Investment multiplier ; and*
- (c) *Foreign trade multiplier.*

2. *The Keynesian investment multiplier is a purely static concept as it abstracts from the time element and assumes all adjustments to take place instantaneously and simultaneously. Prof. Hicks, however, has dynamised the concept by introducing the idea of "time-lag".*

3. *The Keynesian multiplier theory is of limited applicability to the overpopulated underdeveloped country. At first glance, it seems that since the marginal propensity to consume is much higher in the backward country than in the advanced industrial country, the multiplier would operate more vigorously in the former. This, however, is true only in regard to money income and not real income.*

4. *The assumptions underlying the Keynesian multiplier theory like the existence of involuntary unemployment (i.e. the scope for a cut*

in real wages), the presenee of excess capacity in the capital equipment, availability of skilled labour, technical personnel and transport which ensure an elastic supply of output do not hold good in the underdeveloped country

SELECT READINGS

- 1 Keynes, J M *General Theory*, Ch X
- 2 Kurihara, K K *Introduction to Keynesian Dynamics*, Ch VI
- 3 Singh, V B (ed) *Symposium on Keynesian Economics* (articles on Keynesian Economics by Dr V K R V Rao and Dr A K Das Gupta)

18

Q. Examine the role of expectations in determining output and employment. *(Bombay 1958)*

Examine the appropriateness of Keynesian analysis of the role of expectations as a determinant of investment
(Calcutta 1956)

Ans The stability and progress of any society is largely conditioned by the volume of investment. The larger the portion of the national income that is saved and invested the greater would be the rate of production of income-yielding assets and, therefore, the rounds of income to flow in the subsequent periods of time could be expected to grow larger, on the assumption of a full use of the assets produced. The production capacity during a given period of time depends to a great extent on the investment undertaken during the previous periods in order to create durable assets of production and on the same line of reasoning the production capacity of the future would depend on the volume of investment, undertaken in the present. We can easily conceive of a regular "direct variation" relationship between the flow of investment and the flow of the national income, presuming that the complementary conditions such as the supply of raw material, the continuance of demand, labour-management relations etc., work in the normal way. It would not be any exaggeration to contend that the fate of a given economy

depends in the long run on the regularity of the flow of investment. It is, therefore, of the biggest importance to know what precisely are the factors that determine investment in a given community and to examine in this connection the Keynesian analysis regarding the role of expectations.

We had better start off with presumption that we are to examine the appropriateness of the Keynesian analysis only in the light of the conditions of capitalist economy which implies, among other things (a) freedom of choice regarding occupation, consumption, saving and investment, (b) the right to the accumulation of private property, and (c) the right to the pursuit of self-interest within the legal framework of society. Investment in such a society obviously takes place only on the basis of a pursuit of profits. The principal factor which exercises a decisive role in the determination of the volume of investment is the expectations of financiers and entrepreneurs regarding the likelihood of making a fortune in the future on the basis of the investment to be undertaken in the present

The structure of the capitalistic mode of production is such that investment has to be undertaken in anticipation of future demand. Every financier and entrepreneur contemplating a plan of investment must be agitated in his mind about the possibility of making a profit. It must be noted in this connection that the two functions of financing and enterprise are largely separated in modern times and hence, the volume of investment undertaken during a given period of time does not depend on either of them alone. A major role, of course, is played by enterprise in the determination of the volume of investment. It is pertinent, therefore, to examine the motivation of entrepreneurs in undertaking investment

It has been made amply clear by Keynes that it is not merely the mathematical impulse to calculate profit possibilities which could account adequately for enterprise. There is always to be found a spontaneous urge for activity based on a sanguine temperament which underlies visions of building up a bright future on the basis of one's enterprise. In the absence of a natural buoyancy of optimism, there would be very little of human activity indeed, in the direction of investment for future demand. This is of particular importance in view of the near possibility of making reliable forecasts as to how markets would turn in the future. Expectations

are usually based on irrational beliefs constructed on the basis of a projection of the present trends into the future. In fact, the predominance of the prevailing trends in the calculations about the future is so disproportionately heavy that favourable conditions of the present lead to sanguine expectations about the future and unfavourable conditions, to pessimistic expectations. This is how a boom leads to a further boom more intense than before and depression to a further depression. Numerous individuals undertaking investment in several directions have to rely perforce on their own expectations regarding the future built up mostly on wishful thinking. The course of investment is determined by the course of fluctuations in the expectations of the entrepreneurs which is guided largely by the state of psychology that moves this class of people either to intense activity or to lethargic slackness. The future is extremely uncertain indeed, and he would be a bold man who could make a reliable prediction as to how the situation would change even during the short period.

A decisive factor in the present which exercises an enormous influence on an investment is the state of fluctuations on the stock exchanges. The stock exchanges perform the function of a constant revaluation of the existing investment and guide the investors to invest their savings in one form or the other. Investment in securities that already exists does not add a jot to the total volume of investment. What it does is a mere transfer of ownership from one set of people to another. The funds employed on the stock exchanges for purposes of reaping huge speculative gains are so heavy that the genuine volume of investment in real enterprise is likely to be greatly hampered. In fact Keynes contends that real enterprise based on long term expectations is greatly hampered because of the high order of preference received by speculative ventures at the hands of the business community. The expectations on the stock exchanges are so mercurial that it is exceedingly difficult to pronounce any judgment as to how the things would change. Keynes regards speculation on the stock exchange to be highly detrimental to real investment and progress and opines that the British Government in contrast with the government of the U.S.A. has done well in imposing heavy taxes on speculative activities. The stock exchanges would for all practical purposes be useless but for the fact that they provide a comfortable sense of liquidity to the individual investor which in turn provides a great stimulus for investment.

Expectations regarding capital appreciation and depreciation play an important role in determining the volume of investment. These expectations are greatly influenced by the fluctuations of the stock exchanges. There are certain things which one could reasonably expect to come about in the normal course of time. A certain rise in population, for instance, would be a valuable certainty and hence, the demand, for at least the necessities of life could be expected to increase. Certain risk could be passed on to others on the basis of a long term contract. Investment in housing for example could be made secure on the basis of long-term contracts with the tenants. In such cases, there is a secure ground for optimistic expectations and hence, for long-term commitments in investment.

Thus, it seems, waves and waves of expectations regarding what lies in store in the unpredictable future lies at the root of the investment activities in a modern capitalist community. Expectation about expectations made by others plays a decisive role. The Keynesian analysis regarding the role of expectation in determining the total volume of investment in a free society correctly depicts what happens under capitalism. It has, however, no application to a socialistic situation in which the volume of investment is governed and guided by the Central Planning Board on the basis of its own aims and ambitions. Besides expectations, the rate of interest, the monetary and fiscal policy of the state etc., also play an important role in determining the rate of investment in a capitalist society.

POINTS TO REMEMBER

1. *The economic progress of a given society is largely conditioned by the total volume of investment undertaken from time to time.*
2. *In a capitalist society the total volume of investment is largely governed by the expected rate of profits.*
3. *The structure of capitalistic production is based primarily on the anticipation of a future demand.*
4. *The spontaneous urge for enterprise apart from expectation about profits also play an important role.*
5. *Speculation as against real enterprise absorbs a good proportion of the investible funds.*
6. *Expectations regarding capital appreciation and depreciation also play a vital role.*
7. *The Keynesian analysis has to be studied in the light of the total situation.*

SELECT READINGS

- 1 Keynes *General Theory*
- 2 Dillard *Keynesian Economics*
- 3 Hansen *Guide to Keynes*

19

Q Do you agree with the view that economic fluctuations are necessary condition of economic progress? Give reasons (Poona 1962)

Ans Some economists seem to believe that economic fluctuations are a necessary condition for economic progress. This belief is likely to have originated from the historical experience of the countries of the west which have already achieved a revolutionary economic progress in the wake of the Industrial Revolution. Their progress has not been steady and smooth. Their economic history is characterised by periodical ups and downs which have been so remarkably regular in their occurrence, that economic historians show some inclination to believe that business cycles are a characteristic feature of all growing economies. Progress in the western countries has been achieved through the business cycles and hence, the conclusion is drawn that economic fluctuations are a necessary condition of economic progress, whatever has been the course of development in the developed countries is likely to be the course of development in countries that are now trying to develop and hence, history is likely to repeat itself. This is the line of reasoning in the proposition. We have to examine the assumptions of the proposition and see to what extent those assumptions are likely to repeat themselves in the course of development of the currently underdeveloped countries that are trying to develop.

Western countries are countries that have achieved economic progress mainly on the basis of private enterprise with only a marginal assistance from the state by way of protection to local industries. It is only in the Soviet Union that the state has been the principal agency to initiate and sustain economic progress on

a planned basis. This is a very important point to note in connection with economic fluctuations that characterise the unplanned economies. A lack of co-ordination of the economic activities of myriads of individuals lies at the root of the fluctuations in the western economies and, therefore, the positive proposition seems to be warranted that with a proper co-ordination and planning, the maladjustments in production could possibly be removed. Development on a planned basis is radically different from development on the basis of private individual enterprise which keeps in groping for profit on inadequate knowledge of market conditions and on more or less irrational moods of the moment. A comprehensive plan based on reliable and adequate statistical knowledge may not be open to the same errors of production as is clearly evidenced by the Soviet experience. There have been no fluctuations of the capitalistic type in the course of development of the Soviet Union and if the underdeveloped countries follow the Soviet type of development, there seems to be no reason why fluctuations should be a necessary condition of economic development.

Fluctuations, moreover, occurred in the past due to the non-interfering policies of the governments. The philosophy of *laissez faire* was carried to the extent of deprecating every economic activity of the state including those economic activities which were calculated to advance the interests of the community as a whole. This philosophy reigned supreme right up to the advent of the Keynesian school of thought which completely demolished the old fashioned beliefs and strongly advocated corrective state action to counteract the fluctuations in economic activity which periodically caused so much of disturbance in the economy. Governments are no longer the mere onlookers of the fluctuations as they occur, but they do take today all sort of corrective measures to avert the fluctuations. This is particularly so ever since the thirties that taught a bitter lesson to the advocates of *laissez faire*. In the economies that are now trying to develop the governments are bound to assume a major role in the process of initiating and sustaining economic progress and it does not at all seem possible that they would let the fluctuations occur as in the past. The currently developing economies can draw on the experiences of the countries which have already developed and can easily avoid committing the same mistakes. On this ground as well it seems that fluctuations need not be a necessary condition of economic progress.

Fluctuations in the past in the Western European economies occurred due to the growth of inequalities in the distribution of income along with the growth in the national output. The strong propensity to save of the wealthy classes created a deficit in the aggregate demand for goods and services and caused the periodical occurrence of depressions. This was revealed sharply by the Marxian analysis as also later by the Keynesian school of thought and gave a sort of spur to the welfare measures which could incidentally be of benefit to the employers as well. Keynes in particular brought to light the consequences that follow the propensity to consume as well as the propensity to save and their relation to the business cycles. Keynes strongly advocated a public works policy and reduction of inequalities through appropriate fiscal measures. Progressive taxation and progressive public expenditure were advocated, not merely on welfare grounds but also on the ground that these measures served a major anti cyclical purpose. Since the adoption of these measures, there has been a big reduction in the amplitude of the fluctuations and, therefore, it is reasonable to believe that fluctuations could be avoided, if there is a better distribution of income. The workers today are more conscious of their own rights and privileges and there is strong socialist bias in the countries that are now developing. Therefore, great inequalities in the distribution of wealth, and income which constitute a powerful reason for the fluctuations need not continue to remain in the countries that are now trying to develop. On this ground as well, it seems that fluctuations need not be a necessary condition for economic progress to the extent that inequalities get corrected, fluctuations also get corrected and what is the reason to believe that inequalities would not get corrected ?

Further fluctuations occurred in the past in the free economies, due to a sudden boost of economic activities during certain periods due to excessive optimism caused by factors of an impermanent character and the resulting excessive expansion built within itself the causes of the later depression to follow. There was no way of reliably forecasting long-term demand. Today there has been so much of a research in correctly understanding the probable nature of the markets in the future, that better predictions could be made and proper guidance provided to the entrepreneurs. The big push to be followed by a stagnation need no longer be the natural rhythm of economic activity. Adequate intelligence could be provided to

the producers to see that their calculations do not go wrong. In spite of precautions some fluctuations may occur but fluctuation need not constitute a necessary condition for economic progress. That fluctuations have occurred in the past does not mean that they are a necessary condition for economic progress.

Fluctuations in the agricultural sectors of the economy may occur due to seasonal conditions and hence, industrial fluctuations may also come about due to undependable sources of raw material supply or the supply of food-stuff for the industrial population. Fluctuations may and generally do occur in the course of economic development but that does not warrant the proposition that fluctuations are a necessary condition for economic progress. There is every reason to believe that economic progress would have been much greater if the western economies could possibly avoid the enormous loss of production of the depression periods. A boost in economic activity is a necessary condition for economic activity but not so the opposite, namely depression. The proposition seems to be based on unsound reasoning.

POINTS TO REMEMBER

1. Some economists seem to believe that fluctuations are a necessary condition of economic progress.
2. This belief is likely to have originated from the experience of the Western European economies which have achieved progress through fluctuations.
3. So runs the belief that what has happened in the past is likely to happen in the future also. A concomitant accident is taken to be a necessary condition. This is a clear fallacy of reasoning.
4. Fluctuations are the characteristic of an unplanned private enterprise economy which has no agency to co-ordinate the activities of myriads of individuals. Given proper planning, fluctuations could be avoided.
5. Fluctuations occurred due to the *laissez faire* policy of the state. If the state undertakes corrective anti-cyclical measures, fluctuations could be avoided.
6. Fluctuations occurred because of inequalities and the deficiencies in aggregate demand that followed there from. This also could be corrected.
7. Avoidance of fluctuations could bring about much greater progress by avoiding the loss of the depression periods.

Q "Prosperity is the cause of depression" **Comment**
(Kerala 1961)

Ans Apparently, it appears rather paradoxical that prosperity should be the cause of depression. The correlation between prosperity and depression could, perhaps, be best understood and appreciated by a precise definition of the concepts which the two terms denote. In the context of business cycles, prosperity stands for the up swing of economic activity that characterises a boom. Prices continue to rise, profit goes on increasing, there is a good deal of incentive for brisk investment in view of the general buoyancy and optimism that exists about the expected market conditions. There is a full utilisation of installed plant capacity in different spheres of the economy. Employment opportunities multiply so much that unemployment sinks to its lowest level and sometimes gets completely eradicated, there is a tremendous increase in the net national product, commodities are lifted off the market with very little effort and economic activity appears all bright and shining. Rightly is this phase called the boom because business activity keeps on booming with all round prosperity.

The term depression is a description of the state of affairs as obtain during the down swing of business activity. Prices decline, profits dwindle, there is a glut in the market of unsold stocks of goods, the employers can no longer afford to employ the usual volume of labour, a large number of workers are sacked to swell the army of the unemployed, there is a visible fall in output since there is a significant under utilisation of installed productive capacity. There is a fall in the earnings of every factor of production because profits decline, dividends sag, rents dwindle and wages fall in the case of those who manage to remain in employment and disappear altogether in the case of those who are thrown out of employment. The net result of a fall in the income of the people is a fall in the demand for goods and services which leads to a further fall in prices. Depression deepens further throwing the economy in the midst of a whirlpool of pessimism.

In every capitalist economy, there is a periodic alternation of booms and depressions. Explanations have been given for the phenomenon of business cycles in terms of under-consumption, over investment, over-production, seasonality of natural cycles in agriculture etc. Our immediate concern is with the explanation of a depression and particularly, an analysis of the proposition that prosperity is the cause of depression. Any explanation of a depression must be in terms of a lack of adequate demand for goods and services and, therefore, we have to examine the nature of a period of deficiency of demand which leads to the birth of a depression in the market.

The point in issue is the influence of a period of prosperity on the nature of aggregate effective demand during a subsequent period which immediately follows at the end of boom. The concept of a causal relationship necessarily implies succession of two phenomena in such a way that they could be said to be related in a causal kind of a way. The cause must not only precede the phenomenon for the occurrence of which it is held responsible but must provide a sufficient evidence to show that, that cause alone has been responsible for the event. In case the cause is removed, all other things remaining equal, the effect also should disappear. In this sense, if prosperity disappears, depression also should disappear, if at all the two phenomena are causally related. It is also possible to conceive of a situation in which both prosperity and depression have their origin in a third cause, say for instance, the capitalistic mode of production and should the mode of production radically change, as under communism, there might occur neither a boom, nor a depression in the cyclical sense. We are, however, not concerned with what might happen if the economic framework itself undergoes a radical structural change. We shall have to examine the phenomena as they occur within the capitalistic order. So, the question remains whether booms and depressions are causally connected. Should booms disappear there is reason to believe depression in the cyclical sense would not occur; there would be only a low level of economic activity through and through with neither the prosperity of the boom period, nor the debacle of a depression. There would perhaps be a steady low level equilibrium without any serious jerks, excepting for the natural seasonality in the extractive industries. It is pertinent, therefore, to examine how the seeds of subsequent

depression are sown during the period of prosperity. The search for causation with regard to the origin of depression must be made in the vortex of components which constitute the essence of a boom, keeping an eye on those factors which are likely to influence the aggregate demand for commodities as against their supply.

The existence of a boom in the market brings about a significantly notable change in the psychology of the entrepreneurial classes who are moved to their depths with the bright hopes of making a huge fortune on account of the buoyancy in the market. Brisk turn over yields enormous profits, a considerable proportion of which is ploughed back to the market in the form of fresh investment. Every piece of investment creates additional productive capacity with a new tributary joining the main stream of the net national product. Every investment makes a durable addition to the potential for the generation of income over the life of that investment. The stimulus that the existence of a boom provides to the market evokes a zealous response in the form of a significant addition to the productive potential of the economy. The supply position not only improves because of fuller utilisation of productive capacity already built up but also because of the fresh additions to the productive potential made in the form of new investment. The total supply taking into account the old and the new investment made in economy, improves so much that the stream of the net national product overflows the banks inundating good many markets in which the specific supply of and demand for a certain category of commodities does come to a position of stable equilibrium. There is no such thing as a co-ordinated direction to the wild enthusiasm to investment to make a fortune especially because of the individuality of the investment decision taken in a capitalistic society by numerous independent men in accordance with their own personal calculations regarding the possible trends of markets. There is, therefore, not only the possibility of over investment in the sense of an addition to productive potential much beyond the capacity of the market to absorb but, there is wrong direction to investment in many a case. Investment once made is difficult to disinvest with a view to change over to a new field in which there is an unsatisfied demand. There is a certain irreversible rigidity about investment-decisions.

A durable investment which makes a durable addition to the productive potential in the economy can continue to work unbroken

only if there is a perennial demand to lift commodities off the market. The perennality or otherwise of demand for goods and services in general depend, given the size of the net national product, on the way in which income comes to be distributed, especially after the additions to the productive potential. Should the pattern of distribution of the national income be reasonably equal, the propensity to consume taken in conjunction with the propensity to save and investment is likely to be adequate enough to ensure a sufficiently strong demand to absorb the total product because the marginal propensity to consume of the poorer sections in the society is generally observed to be pretty strong as against the strong propensity to save of the well-to-do sections. The point at issue is that some group or the other in society must have the desire and the means to buy the commodities produced at a reasonable price which yields a fair return to the entrepreneurs. Should there be a want of a sufficiently strong desire or a lack of adequate means, there is bound to be a deficiency of demand which results in the accumulation of unsold stocks in the market, leading to the onset of the so-called period of depression.

How does a boom affect these two fundamental forces behind the demand for commodities? The answer to this question will enable us to see if the seeds of depression are sown by prosperity. It seems the process works in the following logical sequence :

1. The existence of a boom provides a strong stimulus to investment because of the bright hopes of making a huge fortune.
2. The total productive potential in the economy improves in several directions leading to a big enlargement in the stream of the national income.
3. In comparison with the enormous increase in the position of supply, demand lags behind.
4. The reason for the comparative slackness of demand is primarily a bad distribution of income.
5. Those who have the desire to buy do not have adequate means at their disposal and those who have the means, do not have the desire because they already have most of their conventional wants satisfied.

Therefore prosperity is the cause of depression in the sense that prosperity does not bring about a proper distribution of income,

even as it adds to the productive potential. The supply increases but demand does not register a rise in the same proportion primarily because of unequal distribution. Prosperity well distributed should not cause any depression under it but extraordinary prosperity

POINTS TO REMEMBER

1 *In a capitalist society, there is an alternation of prosperity and depression and because prosperity invariably leads to depression there is the suspicion of a causal relationship between the two.*

2 *Prosperity refers to the upswing of the business cycle whereas depression refers to the downswing. The two concepts need to be defined in unambiguous terms to understand the causal nexus between the two.*

3 *Mere succession of two phenomena is no proof of their being caused by one another. There would be an adequate proof only if depression disappears with the removal of prosperity.*

4 *There does appear to be some causal nexus between prosperity and depression in the framework of the operations of a capitalist society. In case, there is no prosperity, there would be a constant low level equilibrium.*

5 *The stimulus of a boom evokes over enthusiastic investment which enormously improves the productive potential of the economy. There is uncoordinated accretion of productive capacity in several directions.*

6 *Demand does not improve in proportion to the betterment in supply mainly because boom concentrates purchasing power in the hands of the minority of entrepreneurs and rentiers.*

7 *Those who have the desire to buy do not have adequate means at their disposal and those who have the means do not have the desire. The result is depression. The prime cause of depression is bad distribution. Prosperity is the cause of depression only in a limited sense.*

21

Q. Evaluate the accelerator as a cycle maker

(Poona 1959)

What is meant by the term acceleration-coefficient? Is it correct to say that different cycles derive their character from the value attached to this co-efficient? What are the different possibilities in this respect? (Gujarat 1958)

"The acceleration principle helps to shed light on some of the most widely observed characteristics of business cycle" Elucidate. On what factors will the strength of the acceleration effect depend? (Karnatak 1959)

Does the acceleration principle offer an adequate explanation of the trade cycle? (Punjab 1958)

Ans. The concept of the *acceleration coefficient* or *relation* was introduced into economic analysis by Prof R. F. Harrod in his epoch-making work *Towards a Dynamic Economics*. The concept has been recently refined and given a usable shape by writers like J. M. Clark, Simon Kuznets, Samuelson and Kalecki.

The acceleration principle implies a technical relationship between consumption and investment. The essence of the principle is that changes in investment are a function not of the absolute level of consumption but of the relative change in consumption. On account of this functional relationship between consumption and investment, a small change in the demand for consumption goods leads to a much wider change in the demand for capital goods.

The concept can be made clear with the help of an illustration. Let us suppose that the annual output of cloth is 100 and capital-output ratio being 1 : 1, 100 machines are required for the production of 100 units of cloth. Suppose further that the average life of the machines is 10 years so that 10 machines have to be replaced every year. Let now the demand for cloth increase by 10% which would induce a 10% increase in demand for machines. Thus the demand for machines will be 20 instead of 10 every year. In short, while the consumption has risen by only 10% investment has risen by 100% (from 10 to 20 machines). Let us now assume that no further increase in consumption of cloth takes place, i.e., although there is no absolute decline in consumption, the rate of growth of consumption becomes zero. In this case since the demand for machines for the purpose of replacement would rise by 1 machine only, the total investment will decline from 20 machines to 11 machines. A fall in

the rate of change of consumption will thus cause an absolute change in investment

The acceleration effect depends in the first place upon the capital-output ratio or capital coefficient. Greater the capital coefficient, larger would be the increase in investment as a result of a given increase in consumption. Secondly, the size of the acceleration effect depends upon the durability of the capital equipment. For instance, everything else remaining unchanged in the previous illustration let us suppose that the life of the capital equipment is 20 years instead of 10 years. The replacement demand for machines would then be 5 machines per year for every 100 machines. Now if the demand for cloth increases by 10% the total demand for machines would jump up from 5 to 15, i.e., it is trebled instead of being doubled as in the previous case of a life of 10 years.

The acceleration effect is decidedly limited in periods of declining demand. A decline in the demand for capital equipment (i.e., disinvestment) is necessarily limited to replacement. A business enterprise cannot reduce its demand for capital equipment below zero, all it can do in response to a fall in demand for its product is to curtail its replacement and this is limited to zero. Suppose replacement demand amounted to 10% of the capital equipment and a decline in demand for the finished products equal to 20% sets in. The full working of the acceleration principle will require that the stock of capital equipment should also decline by 20%. But the stock of capital cannot be reduced in any one year by more than the amount of depreciation which is equal to replacement demand. In this case the decline in demand for capital equipment is limited to the 10% replacement demand. The remainder of 20% decline in the demand for finished product will be absorbed by allowing some of the remaining plants and equipment to be idle.

The acceleration effect does not operate in the presence of excess capacity in the capital equipment. If there is enough of excess capacity in the capital equipment, the increased demand can be met by running down the excess capacity and there would be no magnification of demand for capital equipment. This is an important limitation of the acceleration principle. Many increases in the consumer demand may be met by working overtime or adding extra shifts and thus using the existing equipment more intensively. Moreover industries which experience a variable demand are likely

to maintain a certain amount of excess capacity as a normal condition.

The increase in the demand for finished products must be reasonably certain of continuing for a sufficient time in future and not be of a temporary character. No producer is going to respond to an increase in the demand for his product by ordering more capital equipment if he believes this increase to be only short-lived (as is the case with the consumer demand in the Diwali month or Christmas week)

In recent times in spite of some of the weaknesses and limitations of the principle of acceleration, it has become an extremely popular tool for the analysis of the phenomenon of trade cycle. Prof. J.R. Hicks in his book *A Contribution to the Theory of Trade Cycle* has advanced an explanation of the trade cycle in terms of the accelerator.

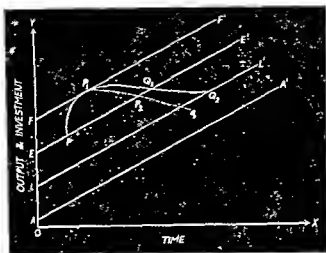
Hicks' theory of trade cycle is based upon the following fundamental assumptions :

1. He assumes a progressive economy in which autonomous investment is increasing at a regular rate.
2. The saving and investment co-efficients are such that any displacement from equilibrium results in a movement away from equilibrium though this movement may be lagged
3. There is a constraint on the upward expansion of the economy provided by the "full employment ceiling".
4. Though there is no such direct constraint on the contraction, yet the "transformation" of the accelerator in the downswing (i.e., disinvestment cannot exceed depreciation) provides an indirect constraint.

These assumptions are diagrammatically represented in the figure on the next page.

AA' represents autonomous investment which is assumed to be growing at a constant rate g .

EE' indicates the *equilibrium path of output* which depends upon AA' and is deduced by applying "super multiplier" to it



FF represents the full employment ceiling which is assumed to grow at the same rate at which AA' is growing

LL' represents the lower equilibrium path of output or the "floor".

Now let us see how given these assumptions the acceleration effect flowing from an initial increment of investment results in cyclical fluctuations in income and employment

Uptil P_0 the economy move along the equilibrium path of output EE. But suppose at P_0 there is a burst of autonomous investment following say, an invention. Although after the burst is over, autonomous investment falls back to its old level yet on account of the explosive saving and investment co-efficients as assumed in the theory, the path of output moves steadily away from EE'

But the upward expansion cannot continue indefinitely. Sooner or later the path of output hits the full employment ceiling such as P_1 and so the path of output turns down. But it does not turn down immediately after hitting. For some time it creeps along the ceiling. This is because of the "lagged" effect of the induced investment. At the point it hits the ceiling maximum effects of the induced investment of the previous periods have not been realised as yet, so it will creep along the ceiling until these effects have been exhausted. The

moment these are exhausted, the path of output starts moving downward and the downswing of the cycle begins.

Once output starts rolling it can no longer remain even along the equilibrium position. This is because of the history of past investment. In the initial periods 0, 1, 2, induced investments are such as raise output above the equilibrium level. When the system is bumping against the ceiling, induced investment is just enough to maintain output along the equilibrium path and in the last few periods when output starts falling, current investment is below the level at which output can be maintained at the equilibrium level. By the time the fall in output reaches the equilibrium point, induced investment belonging to the initial period 0, 1, 2 becomes very weak, whereas the force of investments in the rest of the periods together is not such as to sustain output at the equilibrium level. Hence output must decline below that level.

Now the crucial question is what the character of the downswing would be and whether the downward movement has a bottom below which it cannot go. Hicks shows that the working of the accelerator on the downward path is not the same in character as on the upward path. In fact, on the downswing path, there is a *transformation* of the accelerator. If the accelerator functions in the same way both in the upswing and downswing then the fall would be a steep one as shown by Q_1P_2q . But in reality disinvestment is limited by the rate of depreciation so that the fall in output is slower but prolonged as indicated by Q_1Q_2 . The place of the accelerator is now taken by something analogous to the downward revision of AA' because investment now consists of autonomous investment minus the constant rate of depreciation. This is like a downward revision of the autonomous investment line AA' . Thus since gross investment cannot fall below zero, the fall in output cannot go on indefinitely as in Q_1P_2q . The slump must have a bottom and this floor is provided by LL' . The line LL' is deduced by applying the multiplier to the downward revised AA' and this shows equilibrium output corresponding to that lower level of AA' .

Once the output path reaches LL' it does not turn upwards immediately—it creeps along LL' for some time. This is because of the existence of excess capacity. Once excess capacity is exhausted, the positive acceleration effect comes into operation again and the cycle can be repeated.

Thus Hicks provides a satisfactory explanation of the turning points as well as of the periodicity of the cycle. Since the system has a ceiling and a floor, output and income changes will oscillate between these two limits as the pendulum of the clock moves between the two limits. The very existence of the ceiling and floor ensures some sort of periodicity which may not be regular under all circumstances. At the lower turning point Hicks makes a significant contribution to the theory of trade cycle by showing how excess capacity in capital equipment operates in delaying the upswing.

In spite of these merits, the Hicksian theory of trade cycle suffers from some serious weaknesses. As Prof Kaldor has aptly pointed out in an article in the *Economic Journal* (1954), the greatest vulnerable point of the Hicksian theory is the use of crude and misleading acceleration principle. The acceleration effect presupposes the constancy of the capital output ratio. But in reality during cyclical fluctuations the capital output ratio is subject to significant changes. Similarly the acceleration principle presupposes the absence of excess capacity in capital equipment. But the industries which are subject to cyclical fluctuations are likely to maintain excess capacity in plant and equipment as a normal rule. Secondly, the explanation of the phenomenon of trade cycle furnished by Hicks is highly mechanical and in the real world movements do not take place so mechanically as Hicks has portrayed. In particular Hicks fails to emphasise the psychological forces arising out of uncertainty and expectations which play a crucial role in a dynamic capitalist economy.

POINTS TO REMEMBER

- 1 *The principle of acceleration states that as investment is a function not of the absolute level of consumption but of the rate of change of consumption, a small change in consumption leads to a multiple increase in investment.*
- 2 *The size of the acceleration coefficient depends upon the capital output ratio and durability of the capital equipment. The principle presupposes the absence of excess capacity in the capital equipment and the constancy of the capital-output ratio.*
- 3 *According to Prof Hicks the accelerator is primarily responsible for causing cyclical movements in a progressive capitalist economy. The limit to the upward expansion is provided by the*

full employment ceiling and that to the downswing by the transformation of the accelerator.

4. The fundamental weakness of the Hicksian theory is the use of concept of the accelerator which presupposes constancy of the technique of production and the absence of excess capacity and neither of these presumptions holds good in times of cyclical fluctuations. This theory is also mechanical as it does not emphasise the crucial role of expectations and uncertainty.

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1. Wilson : *Fluctuations in Income and Employment*.
2. Hicks : *A Contribution to the Theory of Trade Cycle*.
3. Kaldor : Hicks on Trade Cycle, *Economic Journal*, 1954

22

Q. "The theory of the multiplier and the theory of the accelerator are two sides of the theory of fluctuations, just as the theory of demand and the theory of supply are two sides of the theory of value." (Hicks) Discuss.

(Bombay 1958)

Ans. According to the theory of value as we know the value of a commodity is determined by the interaction of the forces of supply and demand. The supply or demand alone cannot determine the value. Similarly according to the recent thinking on trade cycle the amplitude and direction of the cyclical fluctuations in income and employment are determined by the interaction of the multiplier and the accelerator. The independent operation of the multiplier or the accelerator is incapable of causing cyclical fluctuations. This is the essence of Samuelson's theory of trade cycle and has been incorporated by Hicks in his model of trade cycle.

The multiplier represents a relationship between an increment of investment and the resulting increment in income. The size of the multiplier effect is determined by the marginal propensity to

consume Higher the marginal propensity to consume larger would be the income generated as a result of a given increment of investment The Keynesian concept of investment multiplier is a static one as it abstracts from the time element Hicks, however, has recently dynamised the concept of the multiplier by introducing time lags The mere operation of the multiplier cannot explain the cyclical fluctuations

The concept of the accelerator or acceleration effect is of comparatively recent origin The essence of the principle of acceleration is that changes in investment are a function not of the absolute level of consumption but of the rate of change of consumption On account of this functional relationship between consumption and investment a slight change in consumption produces a much more violent change in income through change in investment The size of the acceleration effect depends upon the durability of the capital equipment and the capital output ratio Greater the durability of the capital equipment and higher the capital output ratio, greater would be the acceleration effect The accelerator presupposes the absence of excess capacity in the capital equipment and the constancy of the technique of production If there is enough of excess capacity in the capital equipment the increased demand for consumption goods can be met by utilising the excess capacity and therefore the increased consumption need not result in increased investment Similarly if the technique of production is subject to change, the increased output of consumption goods can be produced by utilising the existing capital equipment more intensively without further investment in capital goods

The accelerator also taken by itself is incapable of explaining cyclical fluctuations in income and employment The acceleration effect merely shows how a given change in consumption results in a change in the level of investment

For a complete picture of the process of income propagation we must consider, as Samuelson insists both the multiplier effect and the acceleration effect A given increment of investment generates through the multiplier mechanism income, and consumption out of the increased income results in *induced* investment which again has its multiplier effect upon income and thus the process goes on Samuelson in his model shows that if the multiplier and

acceleration effects are combined together we obtain cyclical fluctuations in the level of aggregate income.

The following are the fundamental assumptions underlying the Samuelson model.

1. It is assumed that the governmental deficit spending of one rupee per unit period which begins at some initial time continues thereafter.

2. The marginal propensity to consume, α is taken to be .5. This is taken to mean that consumption of any period is equal to one-half of the increment in the national income of the preceding period.

3. The accelerator, β is taken to be unity. This means that an increase in consumption of one rupee will result in one rupee's worth of induced private investment.

On these assumptions a model is presented in Table below. In the initial period when the government spends a rupee for the first time, there will be no consumption induced from previous periods, and hence the addition to the national income will be equal to one rupee spent. This will yield .5 of consumption expenditure in the second period, and so on account of the acceleration effect we will have .5 worth of induced private investment. Finally, we must add the new one rupee expenditure by the government. The national

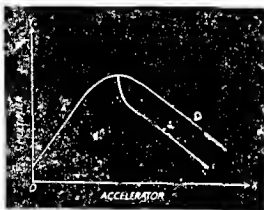
Table I

Periods	Current government expenditure	Current consumption induced by previous $\alpha = \frac{1}{2}$	Current private investment proportional to increase in consumption $\beta = 1$	Total national income
1	1	0 0		
2	1	0 5	0 0	1 0
3	1	1 0	0 5	2 0
4	1	1 25	0 5	2 5
5	1	1 25	0 25	2 5
6	1	1 25	0 0	2 25
7	1	1 0	— 125	2 0
8	1	1·9375	— 125	1·875
9	1	·9375	— 0625	1 875
10	1	96875	0 0	1 9375
11	1	1 0	03125	2 0
12	1	1 0156	03125	2 03125
			·015625	2 03125

1. Table reproduced from Samuelson's "Interaction of the Multiplier and Acceleration", in *Readings in Business Cycles* (American Economic Association).

income of the second period must therefore total Rs 2. Similarly in the third period the national income would be the sum of Re, 1 of consumption expenditure, 5 of induced private investment and Re 1 of current government expenditure. It is thus clear that given the values of α and β the succeeding levels of national income can be easily calculated. It will be noted that the combined operation of the multiplier and acceleration causes the series to reach a peak at the third year, a trough at the 7th and a peak at the 11th. The cyclical ups and downs of this character cannot be obtained from the series by the multiplier effect or the acceleration effect independently. The acceleration and the multiplier effects are thus the two sides of the cyclical fluctuations just as the supply and demand are the two sides of the theory of value.

Samuelson then shows that by merely changing the assumptions regarding the values of α and β qualitatively different results are



obtained. These changes in the behaviour of the national income with changes in the values of α and β are represented diagrammatically in the Figure above.

Region A shows the behaviour of the national income when the value of β is relatively small. In this case with a constant level of public expenditure, the national income will approach asymptotically a value $\frac{1}{1-\alpha}$ times the constant level of public expenditure.

Region B shows that a constant continuing level of public expenditure will result in damped oscillatory movements of national income, gradually approaching the asymptote $\frac{1}{1-\alpha}$ times the constant level of public expenditure.

Region C shows that a constant level of public expenditure will result in explosive ever-increasing oscillations, i.e., their amplitude increases from cycle to cycle.

Region D shows that if the value of α and β are large a constant level of public expenditure will result in an ever-increasing national income ("compound rate of interest growth") without oscillations.

POINTS TO REMEMBER

1. The multiplier explains how an increment or decrement of investment results in a multiple increase or decrease in income.
2. The accelerator explains how an increment or decrement of consumption expenditure results in a much larger increase or decrease in investment.
3. When the multiplier and the acceleration effects are combined we obtain cyclical movements in the level of national income. Thus the multiplier and acceleration are the two sides of the cyclical movements in income and employment.

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1. Samuelson : Interaction of the Multiplier and Acceleration, *Readings in the Theory of Business Cycles* (American Economic Association).
2. Day, A.C.L. : *Outline of Monetary Economics*.
3. Hicks J.R. : *A Contribution to the Theory of Trade Cycle*

23

Q. Examine critically the over-investment theory of business cycles.

On what grounds would you regard the monetary, the under-consumption and the over-investment theories, taken independently, as inadequate explanations of the phenomenon of business cycles? Indicate whether and if so how, they could reconcile.

(Delhi 1957)

Ans The over-investment theory of trade cycle has been advanced by writers like Hayek, Robbins, Moses, Spiethoff, Cassel and Wicksell. The over investment school of trade cycle consists of two branches. The monetary over-investment theorists like Hayek, Moses and Robbins hold monetary factors to be primarily responsible for over investment and trade cycles. The non-monetary branch of over investment school consisting of Cassel, Schumpeter, Spiethoff and Wicksell emphasises technical and institutional factors like inventions, discoveries, opening of new channels of trade, new sources of raw materials etc., as the casual forces in the phenomenon of trade cycles.

According to the monetary over investment school, the upswing begins when the *market* rate of interest falls below what Wicksell described as the *natural* rate of interest. The demand for credit increases and the level of money investment rises. As there is usually a time lag between the inflow of investment and the outflow of output, the increase in investment does not immediately lead to an increase in output. On the contrary, an increase in investment leads to a rise in prices and the rising prices by increasing profits stimulate further investment. Thus a process of cumulative expansion begins and is sustained by credit expansion and inflationary rise in prices.

So far the explanation runs parallel to the purely monetary theory of trade cycle as formulated by Hawtrey. But according to the over-investment school, the process of expansion also produces a distortion in the structure of production. This is the non monetary or the real aspect of the theory. The capitalist structure of production is by its very nature capital intensive. In the upswing the capital intensity of the economy increases manifold. Certain contract incomes like wages, salaries and rent lag behind the rising prices. The rigidity of these incomes has the effect of curtailing consumption and imposing *forced* savings upon the community. The forced savings increase the supply of investible funds and the market rate of interest tends to fall. This combined with the artificial gap between the natural and market rates of interest stimulates further investment. As the rate of interest falls relatively to wages, capital intensive production becomes relatively cheaper than labour intensive production—the capital goods sector becomes over-developed relatively to the consumption goods sector.

The seeds of the breakdown of the boom are to be found in this very phenomenon of the disproportionality in the structure of production. The credit disbursed by the banking system soon becomes disposable income in the hands of the public. This increases the demand for consumption goods. The increase in the demand for consumption goods implies that the production of consumption goods becomes relatively more profitable than capital goods so that there is a diversion of investment from the capital goods to the consumption goods sector. Secondly, the increased consumption reduces the volume of savings and consequently the rate of interest tends to rise. This affects the capital goods sector more adversely than the consumption goods sector. Thus the shortage of capital (equivalent to under-saving or over-consumption) brings the boom to an abrupt end and the old arrangement in the structure of production is restored. Besides these the banking system after a certain point refuses to continue the process of credit expansion because of the danger of a collapse of the monetary system.

The breakdown of the boom induces a process of deflation and hoarding. Under the influence of general feeling of insecurity and pessimism the firms as well as the public seek to strengthen their liquidity position and there ensues a process of cumulative downswing.

The over-investment theory of trade cycle suffers from a series of serious limitations. In the first place, the theory is based upon the implicit assumption of full employment. But it is much more realistic to start with a condition of unemployment. In such a case the effects of expanding bank credit would be very much different from those postulated by the over-investment school. Secondly, the concept of forced savings which is the heart of the analysis is based on the premise that consumption must be curtailed if the capital goods sector is to expand. Suppose, however, that widespread unemployment prevails at the time banks advance credit to businessmen. Under these conditions it is possible to expand simultaneously both the capital and consumption goods sectors. Prices of goods and services need not rise and forced savings need not be created for financing investment in the capital goods production. Thirdly, the over-investment school over-estimates the influence of changes in the rate of interest upon the character of production and level of investment. Neither the level of investment is so responsive to

changes in the rate of interest nor is the capital intensity subject to instantaneous fluctuations in response to small changes in the rate of interest. Finally, the theory does not touch the originating cause of the trade cycle. Why is it that the market rate of interest falls at any time below the natural rate and rises above the natural rate at another time? The theory does not furnish any satisfactory explanation. Similarly, the theory does not explain the market periodicity of booms and depressions. Thus the theory is an inadequate explanation of the phenomenon of trade cycle.

The under-consumption theory of trade cycle is associated with the names of Malthus, Sismondi, Hobson, Foster and Catchings.

The central theme of the under consumption theory is that depression is caused by over saving the root of which is to be found in the unequal pattern of distribution of income particularly in the capitalist society. The high propensity to save of the higher income classes creates a deficiency of aggregate demand. The prices fall, profits are reduced and thus a process of cumulative contraction begins.

But how does the crisis start at all? How does the boom come to an end and give place to the depression?

1. During the boom encouraged by rising prices and profits huge investments are made by the entrepreneurs in the production of capital goods. But the capitalist process of production is by its very nature time consuming. Therefore, the output of consumption goods does not rise immediately. Prices remain high and profit margins persist and there is constant stimulus to investment. But after the *gestation* period the consumable goods begin to pour into the market. But the demand remains inadequate to absorb the increased supply of consumption goods on account of the natural lag between the rising prices (and profits) and wages. The market *of consumption goods is glutted, their prices fall and thus the boom comes to an end and the downswing begins*.

The under consumption theory is an incomplete explanation of the cyclical fluctuations in income and employment. It explains only the phase of depression, it does not provide any explanation of the boom. Neither does the theory advance any reason for the marked and regular periodicity of the cyclical movements.

Thus taken independently both the over-investment and under-consumption theories are inadequate explanations of the trade cycle.

At first sight it would appear that the two are widely different and the differences are irreconcilable. The under-consumption theory emphasises the unequal distribution of income—an institutional factor as the cause of the depression. The over-investment theory on the contrary emphasises the monetary and technical factors as the cause of the cyclical fluctuations. Secondly, in so far as the explanation of breakdown of the boom is concerned the two theories are poles apart. According to the over-investment theory the boom comes to an end on account of abundance of the demand for consumption goods and the consequent shortage of investible capital. According to the underconsumption theory on the other hand, the boom gives birth to the depression because of the deficiency of demand for consumption goods.

But it is not difficult to reconcile the two apparently dissimilar theories. As Prof. Haberler has rightly pointed out both the theories contemplate a maladjustment in the structure of production. The allocation of resources does not correspond to the monetary demand for the output of the different sectors of the economy. More precisely, the pattern of production does not correspond to spending and saving. But these maladjustments are not of the same order. The top of the structure of production according to one theory, the bottom according to the other is over-developed relatively to the flow of purchasing power. In a sense both the theories can be described as over-investment theories. To the under consumptionists, investment is excessive in relation to the consumer demand. According to the over-investment school, investment is excessive relatively to the supply of capital.

In respect of one feature the two theories are complementary. According to the under-consumptionists, lag between wages and prices increases profits and thus stimulates investment. According to the over-investment school, investment is stimulated by a fall in the rate of interest caused by increased forced savings. The lag between wages and profits is implicit in the concept of forced savings. The over-investment school will probably welcome the idea of increased profits caused by *wage prices differential* as a factor reinforcing the cumulative process.

The monetary theory of trade cycle has been advanced by Prof R G Hawtrey. According to this theory trade cycle is a purely monetary phenomenon and is caused by monetary factors only. As Hawtrey has put it, "The boom and depressions are the replica of inflation and deflation respectively." The boom is brought about by a fall in the bank-rate which induces the "dealers" to hold more goods. They place orders with the producers of more goods—the scale of production expands and income and employment increase. The depression is similarly caused by a rise in the bank rate.

The purely monetary theory taken by itself is also an inadequate explanation of the trade cycle. If it is true that the trade cycle is caused by monetary factors only, it follows monetary policy has an effective influence upon the course of trade cycle. This, however, is not borne out by experience. For instance, during the depression of the thirties, the Federal Reserve System carried the process of credit expansion to fantastic extremes but without any effect upon the depression. This clearly shows that there are non-monetary factors which are beyond the control of the monetary authority.

The monetary theory of trade cycle can be easily reconciled with the under consumption and over investment theories. In the over investment theory the monetary branch of the over-investment school clearly emphasizes the role of monetary factors. The boom is brought about by the market rate of interest falling below the natural rate of interest. Similarly the depression is caused by the market rate of interest rising above the natural rate of interest. The under consumptionists do not explicitly emphasize the role of monetary factors but monetary factors can be introduced as additional factors reinforcing the cumulative process.

POINTS TO REMEMBER

1 According to the over-investment theory, the upswing is caused by the market rate of interest falling below the natural rate and the downswing is caused by the reverse movement. The theory is inadequate as it is based on the assumption of full employment and it is incapable of explaining the periodicity of the trade cycle.

2 According to the under-consumption theory the cause of trade cycle is the peculiar nature of capitalist production and the unequal distribution of income. The theory is inadequate as it explains only depressions.

3. According to the purely monetary theory booms and depressions are caused by changes in the bank-rate. It is also an incomplete theory as it ignores important psychological, technical and institutional factors.

4. All the three theories can be reconciled. The over-investment as well as under-consumption theories can be described as "over-investment" theories in a special sense. The monetary factors can serve as complementary factors in both the theories.

SELECT READINGS

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- 2 Estey . *Business Cycles*.
- 3 Rimbard . *Theory of Business Fluctuations*.

24

Q. Explain the concept of forced savings. How has this concept been used in explaining the occurrence of crises ?
(Gujarat 1960)

Give a brief account of the saving process. Should saving lead to deflation and to economic stagnation ?

Ans. It is remarkably amazing that such a simple phenomenon as that of the process of earning, spending and saving should be a matter of dispute. In the pre-Keynesian era, there does not seem to have been a lucid conception of saving and the economic significance of the process of saving. There did not exist a clear cut distinction between the micro and macro consequences of certain economic activities like consumption, saving and investment. It was just presumed that saving is an unquestionable eternal virtue. Thrift was extolled for its own sake and parsimony was held in the highest esteem particularly because it was a religious injunction. It was with the publication of the *General Theory* in the year 1936 that a searching analysis appeared on the scene regarding the conception of income, the meaning of consumption, the process of saving, the significance of the process of saving and investment and

the logic behind the cycle of exchanges constituting the net-work of the economic process. One has to understand and appreciate the meaning and significance of the process of saving, before attempting an analysis of the conception of forced savings.

Savings ordinarily would mean the excess of income over consumption. "So far as I know, everyone agrees in meaning by saving the excess of income over what is spent on consumption"¹. The quarrel over the meaning of saving, therefore, could arise only regarding what is meant by income. For example, Prof. Robertson maintains that income in this context should mean disposable income which was earned 'yesterday' and is available for spending today. Keynes himself had changed his stand from the *Treatise* to the *General Theory*. In the *Treatise* Keynes did not include in income windfall profits or losses and took account of only normal profits. In *General Theory*, however, he defined income as inclusive of all receipts from whatever source in a given period and therefore windfall profits or losses were to be reckoned as part of income or were to be excluded from it. However, the question of income decides only the problem of defining saving and not the problem of forced saving.

Forced saving should mean, according to commonsense, saving which was not planned by the savers but which had to be made by them because of the circumstances out of their control. But this "forced saving has no meaning until we have specified some standard rate of saving"². What is a standard rate of saving? It will be also impossible to give a figure in absolute terms or in percentage of income. Nor is it possible to link the concept of forced saving with that of subjective sacrifices of pains and pleasures. Prof. Hayek in his "Note on the Development of the Doctrine of Forced saving" (*Quarterly Journal of Economics*, Nov. 1932) gives the view that in earlier days forced saving was associated with the concept of full employment. Bentham had introduced the concept of forced saving stating how the people would be forced to save if there was already full employment. Because of the extreme of full employment investment cannot increase output and results only in compulsory saving on the part of the community. Some similar ideas were in the minds of later economists also. Keynes points out that perhaps it

1 Keynes, J. M. — *General Theory*, p. 74

2 *Ibid.*, p. 80

is good if we defined forced saving as the excess of actual saving over that saving which "would be saved if there were full employment in a position of long-period equilibrium"¹. In other words, Keynes says that with the existence of full employment, a certain amount of investment and hence saving is necessary to maintain that equilibrium. If the situation is therefore of over full employment due to the excess of investment, forced savings will take place. On the other hand, if full employment is not reached due to the deficiency of investment, there will be less of savings as compared with full employment savings. Thus if the standard rate of saving is chosen as that rate which will be obtained at full employment equilibrium, Keynes says we are able to get a proper definition of forced saving. He hastens to add further that in such a case positive forced saving would be a rare phenomenon because seldom does an economy reach over-full employment state and at any rate such a situation will not be stable. We shall be only having "negative forced saving" if there can be any such thing.

The idea of forced saving has been used in modern times in the context of underdeveloped countries also. Here the context is always real saving out of real income so as to make more of real investment possible for increasing capital formation in the country. It is quite clear that with the advancement of an economy, capital stock of the community has to increase and this increase can take place only if out of current income more is saved. The question as to whether the average rate of saving should increase or decrease is immaterial so long as the current savings increase over the usual saving figure. However, with greater saving it is supposed to be possible to have quicker economic development and with smaller savings, slower economic development. It is nowadays recognised that for the development of a country, in some form or other, the savings have to be increased. But the question arises which savings will be termed as forced savings in this context.

Probably the best way to define forced savings will be to denote that part of saving as forced saving for which there was no intention of the community to save. Thus on this basis it will be possible to force saving in the community by increasing investment, prices and through other measures. In the context of underdeveloped coun-

1. Keynes, J.M.—*General Theory*, p. 80.

tries, for example, savings may be forced out of people by a State decree, or the people may be forced to save more through increased prices. In an economy prices are determined by the flow of goods and services and the flow of money demand, and the share of any individual or group of individuals will be determined by the amount of money demand commanded by that individual or group as a proportion of total money demand. Therefore, in the existing flow of money demand if the government injects more of money through deficit financing etc people will be able to get only a smaller share as determined by the extra purchases made by the government. Such a phenomenon is a common sight during financial stringencies of governments, e.g., during a war, when the government takes away forced loans, and injects additional money supply into the economy. As a result some portion of the national output is diverted towards the use of war purposes and the people are left with a smaller amount of goods and services.

The same phenomenon can be observed even in situation when the Government is not trying to inject more of purchasing power in the economy, but the process is taking place due to increased investment. Here we can think of forced savings either in the context of a situation where our definitions of savings and investment can permit a divergence between the two, or we have to introduce the distinction between *ex ante* and *ex post* savings and investment. Usually the idea of forced savings was associated with the situation when investment could be different from savings as in Robertsonian sense and in the *Treatise*. In such cases whenever investment is greater than savings, there is an excess of expenditure leading to a rise in the prices and hence of savings. Here forced savings are obviously taking place because of the forces of increased money supply in the face of rigid real income, that is to say investment is turning out to be only a monetary phenomenon not resulting in full increase in the real income, otherwise prices would not have risen and forced savings would not have been there. However, such a situation cannot be maintained indefinitely (First explanation of crisis because of forced saving). On the one hand, the investors, looking at the rising prices and money profits, will be trying to increase investment and on the other hand rigidity of real output would be forcing the people. The boom will have to collapse. With the distribution of income becoming more and more in favour of profits, it will not be possible to maintain the money demand for production

and ultimately the investors will be faced with a crisis in which they will not be able to sell their production at the anticipated prices. Investment will have to decline due to this crisis and depression may ensue.

Keynes, however, points out that it is not necessary to proceed to our analysis on the above stated basis. He says that we need not proceed on the basis of inequality of saving and investment. If we measure out categories in terms of wage-units, then any increase in investment will mean increase in real investment and employment and hence real income out of which savings would be coming. Thus there is no question of any forced savings so long as increased real saving is always to come out of increased real income. (Second explanation of crisis which is *without* forced savings being there.) But even in such a situation, with rising investment, marginal efficiency of capital would be falling and with rising income marginal propensity to consume will be falling. Thus though people would not be forced to save more, since additional savings would be coming out of additional income, still aggregate demand will not be able to keep pace with aggregate supply leading to cessation of investment process and crisis. Here the crisis could be averted by increasing investment still further to fill up the gap in aggregate demand. (Third explanation of crisis is again with some sort of forced saving.)

But we can introduce a modification in terms of *ex ante* and *ex-post* concept of savings. Investment and savings are always equal only in the *ex post* sense; but not necessarily in the *ex-ante* sense. And here we get a clear cut explanation of what fluctuations in income should take place when *ex-ante* savings are not equal to *ex-ante* investment. If people plan to invest more than they plan to save, naturally income will go on expanding. Hicks has made use of this inequality between planned savings and planned investment in his *Contribution to the Theory of Trade Cycle* to explain how when the two differ, income will go on fluctuating. If planned investment is greater, the income will increase in the next period; if planned savings are more, the income will decrease in the next period. Here, however, "forced" savings are the result of the increased income and not the cause; similarly reduced savings will be the result of reduced income and not the cause.

In a free society, each individual has the liberty to plan and distribute his income as between consumption, saving and investment

FORCED SAVING

ward and downward phases, and there seems to be no accordance, agreement as to the forces which aggravate the up disposal of income downward process. In the rising phase demand rises entirely on a rise but lags behind rising prices and profits, demand forced to earn more than supply, while just the reverse happens in face of fixed phase

to restrain him

directly as in a in the economy there are often certain built-in mechanism through themselves may not be able to generate a reverse what appears which are certainly very helpful in checking the speed of oppressive mechanism. Such mechanisms to the economy are called built to dictate to him meaning thereby that when the economy is passing consumption as phase of the trade cycle, they try to pull it back, economy is in the depression phase, they try to pull

"stabilizers" naturally should go against the general

1 *The working of various economic forces in the economy if income, as well effective.* In the rising phase, for example, when

2 *Savings* is increasing all round, the built in stabilizers taken by Keynes to reduce the availability of purchasing power to the be a rare thing transferably to the potential spenders. In the falling phase developed countries the "stabilizers" should be able to inject more of

3 *The* ver and revive demand

was never intended

increased price level of such a built in stabilizer is income tax. In most

4 *We* & income tax has a progressive structure. Even if *If savings are* proportional, it is quite clear that with rising income come in favour would go on increasing leading to increasing appropriation of income by the State. In the case of progressive cause a crisis

5 *In* tendency is strengthened further. However, just taxing assuming that the income does not suffice, it is necessary that this explained by fact should be shunted out of the purchasing power flow of national efficiency of which the government may be doing through surplus

6 *In the* On the other hand in the case of a depression, auto-declining income taxation goes on decreasing, leaving post concepts more purchasing power with the people. In the olden *The crisis will* income tax usually was not there, or formed only a vestment of the income or was even regressive in certain cases, utilizing capacity was naturally best. However, these

1 Keynes to find an example in which income tax is not

2 Hayek in stabilizer. In the list of built in stabilizers we *Quarterly* devices of a modern welfare State primarily designed

3 Harris

to help the common people when they are in need. The case of unemployment insurance is in point. With rising income and employment, unemployment benefits automatically go down and contributions to unemployment funds go on rising; while with falling employment the payments out of these funds increase—thus ensuring a sort of automatic adjustment of the flow of purchasing power in the light of the needs of the economy. Another example is of price support policy adopted in the case of certain industries. We have seen the example of agricultural price support policy of the U.S. Government, where it guarantees to purchase different agricultural commodities at certain minimum prices. Such a policy, when prices are falling ensures minimum prices to the producers with the result that producers do not cut down their investment and employment abruptly, then supporting a general lifting up of the economic system. Further when prices rise, the Government releases the stocks of the commodities purchased during "bad" times thus preventing a speculative rise in prices.

However, it has to be remembered that these built-in stabilizers are often mild in their *effectiveness*, unless they cover a major sector of the economy. In the U.S.A. it is claimed that since Second World War, most of the slumps have been automatically corrected without much of governmental help, but we must remember that in the U.S.A. the above-mentioned three built-in stabilizers are at work in a major way. People pay a major portion of their income in taxes, unemployment benefits are in operation and agricultural price support policy is well-known throughout the world. Clearly if only a very small portion of population is subjected to income-tax, if the rates are low and similarly if the government has not very substantial social security programmes, there will not be enough of automatic squeezing out or injection of purchasing power in the economy. Similarly if the government is trying to interfere for price stabilization it must cover major sectors of the economy and not concentrate upon unimportant things. Above all, it has to be remembered that built-in stabilizers work only in a simple way. The actual situation is always much more complex and needs an intricate treatment. An economy, if it is not very sensitive to changes in some of its sectors will not respond quickly enough to built-in stabilizers working in some of the sectors only; while if it is sensitive it is bound to be a complicated affair and will definitely need various checks and balances at several points. If built in stabilizers alone had been enough,

the problems of inflation and deflation would have not been bothering the governments so much. In order to have a realistic policy we need a thorough controlling system of the economy's various organs financial, monetary and others.

For example when we are faced with inflationary pressures, various other fiscal measures will also be needed. We have already seen that to some extent fiscal measures in the form of income-tax, unemployment insurance and other social security measures are quite helpful though often inadequate. We need not repeat how these built in stabilizers which form a part of the fiscal measures work. As was pointed out, it is not enough that these built in stabilizers should be at work. With rising prices, there will be demand for rising wages, which if granted will raise the cost of production still further and thus will generate a cost price spiral. In order to check it, it is necessary that money wages should be kept in check. Also in order to discourage excessive investment, the government should levy extra taxes on profits and other incomes and should try to have surplus budgets. In the foreign trade field, the efforts of the government should be to have a deficit so that the foreign trade multiplier works in the direction of reducing money incomes of the people. Ordinarily if exchange rates are pegged, with rising prices in the foreign markets, exports will be discouraged and imports will be encouraged. But it may happen that special efforts are needed to curb the inflationary pressure, especially when the foreign countries are also afflicted by it. In such a situation, the reduction of import duties and enhancing of export duties is admirable. In one word, what is required is increasing flow of goods and services and decreased flow of purchasing power of economy.

There has to be a reversal of these measures in the depression phase of the business cycles. One of the important steps is to raise wages so as to bring about an increase in the purchasing power of the workers. But here it is feared that wage increase will mean increased cost and hence reduced profits leading to discouragement of investment¹. The classical economists believed that by reducing

1 The controversy whether wage cut increases employment etc., or not and thus whether it pulls the economy out of depression has been dealt with in greater detail in another question. The student is advised to turn to that question if a detailed discussion is needed.

money wages of the workers it will be possible for the employers to employ more of them and thus the economy will reach full employment ; while Keynes says that a reduction in money-wages would mean reduction of effective demand by almost the same proportion which would mean no increase in marginal efficiency of capital and hence no encouragement for investors. Accordingly, Keynes recommends that instead of a wage cut we should try to encourage consumption and investment through other measures.

Coming to fiscal and monetary measures in general we find that the primary aim of the government should be to stabilize the economy at a high level of employment and income (which does not mean that the economy will not be allowed to progress in terms of income, but the efforts have to be made that it should not decrease or should not increase in a manner which would inevitably lead to a fall). This does not imply absolute stability in a rigid manner. A modern economy is so complex by its very nature that it would be impossible to achieve this, probably it would not be advisable to do so, since after all economies progress only if their parts are allowed to move. Stability, however, here would mean no abrupt change in any of the major aspects of the economy, *viz.*, income, employment, output and prices. Various measures, fiscal and monetary, have been suggested for this and we shall go into them.

We have already analysed the built-in stabilizers which are also called anti-cyclical measures. The most important task of these, as pointed out, is to regulate the flow of purchasing power in the economy so as to correspond to the flow of goods and services at high level of employment and income. Here special reference should be made of the fact that in order to have a good anti-cyclical policy it is necessary to maintain not only an over-all balance of demand and supply, but also various sectoral balances. For example, when the government decides to have a deficit budget, it is decided that some purchasing power is to be injected into the market ; but the net effect of this injection will depend upon its quantity, its speed and the way it is injected and the sector in which it is injected. If, for example, the extra purchasing power is distributed in the form of extra wage income to the workers (especially those who were hitherto unemployed) ; the result will be a sudden rise in the demand for such necessities as food, clothing etc. On the other hand, if the government uses that money to increase the pay of its officers, probably an

increased demand will be felt for cars and houses. It is quite essential, therefore, that the increased purchasing power should flow in those hands which are most likely to create requisite demand both for unsold stocks at present as well as for unutilized capacity of various industries. Sometimes the government may itself have to undertake various investment projects in hand in order to generate additional employment and demand and to convince the private investors of the profitability of investments. Faced with the complexity of the issue Keynes declared "I conceive, therefore, that a somewhat comprehensive socialization of investment will prove the only means of securing an approximation to full employment, though this does not exclude all manner of compromises and devices by which the public authority will co operate with private initiative. In this connection it has to be remembered that a comprehensive control of investment would imply a comprehensive control of financial and monetary system of the economy. Ordinarily it is thought that probably during depression lowering of bank rate and a general easing of the money supply should suffice with the most occasional selective credit controls. But actually a much thorough regulation of the country's monetary and financial institutions is necessary. Firstly regulation of bank credit alone does not suffice. Especially in the depression period investment will not revive simply because loans are easy to have, the investors must feel that it is profitable to invest, and secondly when prospects are high investors are apt to find various ways of crossing the hurdles put in their way through monetary controls. The recent Radcliffe Report has brought to the forefront the various ways in which checks on banks for tightening the bank credit may not suffice. We may be able to check the flow of bank credit but the people have other sources of finance. If, therefore, the economy is to be regulated, not only bank moneys but the whole financial structure of the economy needs controlling.

This brings us to the pertinent question of psychological and institutional implications of these anti cyclical measures. As far as the psychological aspect is concerned, we must have knowledge of the reactions of investors and consumers to various measures taken by the State. It is necessary to know how the investors react to various changes in the tax structure, changes in the cost structure and how they interpret the various investment opportunities presented before them. In other words, we must know on what

major factors marginal efficiency of capital depends and which of the determining factors has how much share in it. Further it is to be found out as to what extent the economy is beset with various rigidities in the form of complementarities and specificities of technical or other nature. The less the technical specificities and complementarities of the factors involved, the easier it will be to push the economy out of a depression or prevent it from inflation. In the absence of rigidities it is not so much necessary to work out in detail the effect of the impact of the government policy and their subsequent results—in other words, the problem of sectoral balances becomes less troublesome. However, more troublesome than technical rigidities will be the social rigidities in the form of non-competing groups etc. Prof. Kaldor, in one of his famous articles, has pointed out that it is easy to reach full employment through various anti-depression measures, but it is almost impossible to stabilise the economy there. The anti-cyclical measures imply the absence of all kinds of rigidities

Talking further of the implications, we can mention the implied existence of "money-illusion." This psychological factor has a great importance in practical policy. For if it is there, it will be possible to reduce real wages without reducing effective demand and money-profitability of investment. In other words, it will be easier to get the economy out of depression; and if it is not there and the workers demand a certain level of real wages, depression cannot be remedied through a cut in real wages; the methods employed will have to increase consumption and direct investment by the government. Similarly, the exact selection of monetary, fiscal and financial regulation of the economy will depend upon the institutional structure of the economy. In a developed country there is an economic deficiency of aggregate demand mainly due to great inequalities of income leading to under-consumption on the part of the rich and there is a lack of overall co-ordination of economic activity. There has to be an integration of the government budget with that of the budget of the nation in the interest of economic stability. In a backward economy, this integration has to be done in the interest of economic development in order to release disquieting forces towards the growth.

POINTS TO REMEMBER

- 1 Trade cycles are mainly a feature of developed free enterprise economies and there is a general agreement as to the forces which aggravate the upward and downward movement of the economy
- 2 In most of the modern free enterprise economies there exist built in stabilisers e.g., income tax, social security and price supports
- 3 But their effectiveness depends upon their strength and support by other measures. Simple working of 'stabilizers' should be supplemented by intricate regulation of the economy
- 4 In the inflationary phase the government should try to check rise in cost, wages and prices through direct steps and selective credit control and through budget and taxation. Investment should also be discouraged. Deficit balance of trade should be tried for. In the deflationary phase above measures should be reversed, but money wages should not be cut or raised. Consumption and investment should be encouraged
- 5 However, throughout the government must try to maintain sectoral balances also. For this a thorough regulation of the country's monetary and financial institutions is required. These days probably controlling the financial institutions is becoming more important than controlling of banks alone. We should try an overall stability and not absolute stability of each sector
- 6 For the success of the anti cyclical policies psychologically the investors and consumers shall respond in the right way, and the response should be known to the government. Confidence in the governmental ability should be there. Technical and social rigidities should be the minimum possible

SELECT READINGS

- 1 Keynes J M *General Theory*, Ch. 19
- 2 Mathews R C O *Trade Cycle*
- 3 Friedman Milton A Monetary and Fiscal Framework for Economic Stability *The American Economic Review*, 1948
- 4 Hardy Charles O Fiscal Operations as Instruments of Economic Stabilization *The American Economic Review*, 1948

Q. Bring out the significant 'leads' and 'lags' in a business cycle. How are they suggestive of a causal analysis?

(Poona 1960)

Ans. Strictly speaking, Keynes did not furnish any clear-cut and ready-made theory of trade cycle. In a chapter in his *General Theory* entitled "Some Notes on Trade Cycles", he merely analysed some of the important features of the phenomenon of trade cycle. As Prof. Dudley Dillard has put it, "The Keynesian analysis is much more and much less than a theory of business cycle. It is more than a theory of business cycle in the sense that it offers a general explanation of changes in the levels of income and employment independently of the cyclical nature of the changes. It is less than a complete theory of trade cycle because it makes no attempt to analyse the various phases of the cycle in any great details.

According to Keynes since the consumption function and the liquidity function are relatively stable, changes in the levels of income and employment must be explained by the fluctuations in the investment function. The volume of investment depends upon the rate of interest and the marginal efficiency of capital of which the former is a relatively stable entity. Thus Keynes settles down upon the marginal efficiency of capital or the prospective rate of return on the capital asset as the ultimate factor in causing the fluctuations in the levels of income and employment associated with the trade cycle.

The upswing of the trade cycle is brought about by an increase in the marginal efficiency of capital. The sequence of events following may be represented thus :

1. The increase in the marginal efficiency of capital raises the level of investment which in turn leads to an increase in output, employment and income.
2. Given the marginal propensity to consume a part of the increased income would be spent which would provide a further impetus to marginal efficiency of capital and investment. The

tendency towards expansion is transmitted from one group to another group of industries and thus the whole economy through the "multiplier effect" experiences a cumulative expansion

3 The process of cumulative expansion cannot go on indefinitely. The increasing volume of investment requires an increasing supply of money and if there is some quantitative limitation on it the rate of interest would tend to rise. This would arrest a further increase in investment.

4 But an inelastic money supply is not the only factor bringing about a halt to the upswing. As the economy reaches full employment and diminishing returns begin to operate, the prices would tend to rise.

5 The rising prices would ultimately affect the cost of production and at this point the marginal efficiency of capital collapses with a suddenness which may be catastrophic.

The pessimistic attitude towards the marginal efficiency of capital brings about a reversal of the trend and gives birth to the downswing. The downswing cannot also continue indefinitely. First, in a period of depression there takes place disinvestment or 'negative' investment. In prosperous periods businessmen pile up heavy stocks of raw materials and in the early part of the depression the liquidation of these stocks is an important cause of disinvestment. When these stocks have been exhausted one reason for the decline in investment is removed. Secondly, there are at any time certain projects of investment especially the renewal of plant for which funds have been accumulated and which will be undertaken in any case. Thirdly, the continuing depression may induce the state to undertake a programme of public works. In these three ways a downswing may come to an end.

Keynes throws light upon a special feature of trade cycle namely that while the transition from boom to slump is violent and sudden that from slump to boom is very slow and gradual. This, according to Keynes, is due to the highly conjectural character of the marginal efficiency of capital. The estimate of the marginal efficiency of capital is based upon the present experience. At the bottom of a slump when the losses are so much more common than profits the businessmen come to believe that no form of investment would yield any substantial return. And a long time elapses before they can be persuaded through measures like easing of credit condi-

tions to step up the level of investment. The mastering of the crisis thus lies in mastering the psychological crisis which is obviously a slow and gradual process. As Prof. Crowther has put it, "The act of stopping a horse from drinking is necessarily sharp and sudden ; to bring him to the water and persuade him to drink, may be a much slower business."

Keynes has also explained the observed periodicity of the boom and slump. The boom would continue until the resources are fully employed ; prices rise and costs of production are affected. The entrepreneurs would react to it by reducing investment—this is the beginning of the depression. The period that elapses between the starting point of the depression and the beginning of the recovery is determined by two factors : (i) the time necessary for the wearing out and obsolescence of the durable capital, (ii) the time that elapses before excess stocks which accumulate towards the end of the boom can be absorbed. It would also depend upon the counteracting measures undertaken by the government. Thus since the reversal is the result of an organic development and does not happen by accident, it naturally follows that it takes approximately the same time to work itself out on different occasions. Keynes estimates that the period of depression should not as a rule exceed 3 to 5 years in a modern industrial economy. He suggests that these movements were more characteristic of the 19th century than they are of the 20th. During the 19th century the tremendous forces of economic growth maintained the marginal efficiency of capital at a level which taken in relation to the rate of interest was high enough to permit variations between full employment and less than full employment. In the 20th century the slowing down of factors like population growth, geographical expansion and the accumulation of capital has rendered full employment virtually unattainable in any economy following the traditional policy of *laissez faire*. The threat of secular stagnation has replaced the intermittent phenomenon of business cycle.

POINTS TO REMEMBER

1. *Keynes has not furnished any complete and clear-cut theory of trade cycle. He merely attempts to shed light on some of the important features of the phenomenon of trade cycle.*
2. *According to Keynes the marginal efficiency of capital is the*

villain of the piece The marginal efficiency of capital is a highly psychological phenomenon and is subject to wide fluctuations

3 The upswing is caused by a rise in the marginal efficiency of capital and the consequent increase in investment The boom may come to an end on account of either a rise in the rate of interest or an increase in the cost of production

4 The downswing is caused by a fall in the marginal efficiency of capital and the consequent fall in investment The depression comes to an end on account of the end of disinvestment and the compensatory public investment

SELECT READINGS

- 1 Keynes *General Theory*, Ch XXII
- 2 Crowther, Geoffrey *An Outline of Money* pp 154—165

27

Q Explain the monetary cause of booms and depressions in industrial activities (Agra 1961)

"The trade cycle is a purely monetary phenomenon"
Discuss (Karnatak 1960)

Do you agree with the view that monetary causes do not create the trade cycle but merely function as an aggravating factor? Give reasons for your answer (Gauhati 1960)

Discuss how far the monetary theory of the trade cycle offers an adequate explanation of periodicity and the turning points (Delhi 1960)

How, and to what extent, can business cycles be explained in terms of monetary factors (Delhi 1959)

Discuss the part played by monetary factors in the development of the business cycle (Karnatak 1959)

Discuss critically the purely monetary theory of the trade cycle (Allahabad 1959)

"The trade cycle is a purely monetary phenomenon"
Comment if recent investigations into the cause of the trade cycle bear this out (Allahabad 1958)

Ans. A purely monetary explanation of the phenomenon of trade cycle was furnished by the prominent monetary theorist R.G. Hawtrey. He propounded this thesis in a number of books he wrote ; mention may particularly be made of the following :

1. *Good and Bad Trade* (1913)
2. *Art of Central Banking* (1927)
3. *Capital and Employment* (1937).

Hawtrey insists that non-monetary factors such as crop failures, wars etc. may breed a partial depression in particular sectors of the economy but a general depression in the sense of the trade cycle cannot be induced by non-monetary factors alone. As Hawtrey has put it, "The variations in the effective demand which are the real substance of the trade cycle must be traced to changes in bank credit."¹ Again, "The trade cycle is a monetary phenomenon because general demand is itself a monetary phenomenon."²

In the business activity of every advanced industrial economy credit plays a crucial role. But the credit system is highly elastic or as he has put it "inherently unstable"—it can be expanded or contracted at any time. According to Hawtrey, this instability of the credit system accounts for the phenomenon of trade cycle. As the bank-rate constitutes the chief string of the credit system, the phases of the trade cycle depend upon the changes in bank-rate. Hawtrey maintains that changes in the bank-rate exercise a very significant influence upon short-term borrowing—the borrowing by "dealers" who hold stock of goods with a view to be able to meet variations in consumer demand. As the major part of their business is financed by borrowed credit they are highly sensitive to changes in the bank-rate.

The *upswing* of the trade cycle is brought about by an expansion of credit, i.e., by a lowering of the bank-rate. The sequence of events following a lowering of the bank-rate can be presented thus :

1. The dealers are induced to hold a larger amount of goods. They place orders for more of goods to the producers.
2. The producers experience a buoyancy of demand. They also perhaps borrow credit from the bank and expand the scale of production.

1. Hawtrey—*Capital and Employment*, p. 61

2. *Ibid*, p. 65

3 The tendency towards expansion is transmitted from one group of industries to another. With the expansion of output, employment and income also increase.

4 With the increase in incomes, the consumers' outlay increases and the dealers find their stocks depleting. There result further orders to producers, a further increase in productive capacity, in consumers' incomes and outlay.

There are two additional factors which aggravate the upswing. First, as the economy tends to reach a state of full employment, prices begin to rise. The speculative motive of the dealers comes into operation and they are tempted to hold larger stocks to sell at higher prices later. Secondly, the velocity of circulation of money tends to increase both because of the briskness of trade and the speculation of the people. Since the value of money gradually falls, people readily spend idle balances which may be at their disposal.

In short, a vicious spiral of inflation fed by a continuous expansion of bank credit is set up.

But the process of expansion cannot go on indefinitely. The man-made limitations, limitation imposed by law and custom are brought into play. The central bank in its anxiety to maintain price stability or exchange stability steps in and puts a check upon the credit system. But since the progress of expansion after it has been allowed to gather a certain momentum can be stopped only by a jolt there is always the danger that expansion will not merely be stopped but reversed.

The *downswing* of the trade cycle brought about by a contraction of credit is no less cumulative than the process of expansion. The sequence of events in this case is—the dealers reduce their stocks, the producers experience a slackening of demand, employment, output and incomes shrink and thus a vicious spiral of deflation sets in. In the downswing, the speculative motive of the consumers plays a more important role. As the prices are falling day by day (or value of money is rising) the consumers postpone purchases in the hope of attaining better terms later and this aggravates the depression.

The process of contraction again cannot be permanent. The central bank ultimately intervenes and starts a policy of expansion of credit. This brings about a revival and the period of revival is readily followed by a boom.

Why do the upswing and downswing occur at regular intervals? Hawtrey contends that *periodicity* is not an essential feature of the trade cycle. The Gold Standard was primarily responsible for the periodicity of the trade cycle. Under the automatic working of the gold standard, the length of the cycle was determined by the rate of progress of the processes on which the cycle depended, the absorption of the currency during the period of expansion and its return during the period of contraction. Since 1914 the automatic mechanism of the Gold Standard has ceased to function and the previous marked regularity in the alternation of periods of prosperity and depression has gone with the Gold Standard.

In short, according to the monetary theory, the trade cycle is due to variations in the purchasing power of the community. As Hawtrey observes, "The trade cycle is nothing but a replica of an outright money inflation and deflation." And for the occurrence of booms and slumps, the bankers are responsible in the ultimate analysis. Indeed a single bank or banker cannot go very far, but the banking system can. If one bank or a group of banks expands credit, other banks will find their reserves strengthened and will be induced, sometimes forced to expand too. In this way, a group of banks can carry with it the whole banking system.

How acceptable is this monetary interpretation of trade cycle? The answer would depend upon what Hawtrey exactly means. If he means that trade cycle cannot be explained without the assistance of monetary factors, probably all would readily agree. That money is not a mere "veil" and it plays a significant role in determining the nature and level of economic activity is commonplace view in the modern economics. If, on the other hand, Hawtrey means to suggest (as he apparently does) that the monetary factors alone are sufficient for causing cyclical fluctuations, it would be difficult to accept his theory on theoretical as well as practical grounds. At best, the monetary theory is an incomplete explanation of the trade cycle.

In the first place, the superstructure of the monetary theory is based upon the crude orthodox Quantity Theory of Money. As this is based on a host of unrealistic assumptions, the foundation of the monetary theory is extremely weak.

Secondly, as has been rightly pointed out by Prof. Harrod, the theory does not touch the originating cause of the phenomenon

of trade cycle What starts the expansion or contraction ? What forces induce the bankers to expand credit at one time and suddenly contract credit at another time ? The theory does not provide any satisfactory answer to these crucial issues

Finally, granted that monetary factors are the *sufficient* cause of trade cycle, it follows that the *banking* policy has a prompt and effective influence on the course of the cycle This is not fully supported by monetary experience In 1938, for instance, the Federal Reserve System of America carried the process of credit expansion to fantastic extremes but all in vain It did not have any appreciable influence on the business activity This suggests that the monetary theory ignores technological and psychological factors and forces which play a significant role in the causation of the phenomena of trade cycle

In the recent literature on trade cycle the purely monetary approach of Hawtrey has been abandoned and more scientific explanations of trade cycle have been offered by Keynes, Robertson, Hicks and many others. According to Prof Hicks whose theory is the most widely accepted one, the trade cycle can be explained exclusively in *real* terms without invoking the monetary factors

POINTS TO REMEMBER

1 *The purely monetary theory of trade cycle has been advanced by Hawtrey according to whom instability of credit is solely responsible for the cyclical fluctuations The upswing begins with an expansion of credit and the downswing with the contraction of credit*

2 *The upswing and downswing alternate on account of the intervention of the central bank necessitated by law and custom*

3 *The periodicity is not an essential feature of the trade cycle The Gold Standard was responsible for the regularity of intervals between the boom and depression*

4 *The monetary theory is at best an inadequate explanation of the trade cycle It does not explain the root cause of the phenomenon If the monetary factors alone are responsible for the trade cycle, the monetary authority should be able to control the course of the business cycle. But this is not borne out by experience showing clearly that there are other factors non monetary in character which are beyond the control of the monetary authority*

SELECT READINGS

1. Hawtrey, Gottfried : *Prosperity and Depression*.
2. Estey : *Business Cycles*.
3. Halm, George N . *Monetary Theory*
4. Hawtrey, R G . *Capital and Employment*.

28

Q. What is the relation of economic growth to fluctuations ? Do you agree with the view that the trade cycle is only a matter of the past ?
(Bombay 1960)

Is it true to say that economic growth always takes the form of cyclical fluctuations in output ? Examine in this context the influence of the factors of growth and the factors which produce oscillations.
(Gujarat 1958)

Ans. The history of the advanced capitalistic economies reveals that economic growth has been achieved through a series of cyclical fluctuations. It would be more appropriate to contend that secular growth has not been seriously hampered by the recurrent ups and downs, characterising the course of economic development of the modern industrially advanced countries, living under a democratic set-up. There certainly have been serious disturbances owing to the fluctuations of business and the problem of avoiding the ups and downs or the problem of economic development with stability has been engaging the minds of economists since long. All the anti-cyclical monetary and fiscal measures have come into existence because of the desire for stability within the general framework of the capitalistic order.

The point to examine is whether fluctuations are inherent within the process of growth. Empirically, historical evidence suggests that growth comes about in response to the felt need of a community. The need takes the form of certain imbalance or disequilibrium in a given situation caused by certain historical changes in the set up and in order to correct the imbalance, a fresh wave of economic activity comes into existence. The need is satisfied temporarily

and a certain passing equilibrium comes into existence. This is only a short lived equilibrium because no sooner the old needs are satisfied, new needs appear in their place, resulting in the appearance of a new disequilibrium and hence, again a fresh wave of activity comes into motion. This process of transition from one state of disequilibrium to another, through some intermediate stages of temporary positions of seeming equilibrium continues *ad infinitum*. Vain, indeed, has been the search for stability. Clever historians find that this process of oscillation with the ebb and flow of economic activities is inevitable if humanity is to march towards higher and higher summits of growth. Some theoreticians openly contend that balanced growth is nothing short of a myth because it is totally contrary to all historical experiences. On this basis has been drawn the inference that economic growth always takes the form of cyclical fluctuations in output. Lack of fluctuations is equated with a state of stagnation and decay rather than with a state of stable development.

The line of reasoning appears to be this. Growth has always been preceded by fluctuations and therefore fluctuations are inherent in the process of growth. Fluctuations are not only inherent in growth but they are responsible for growth. There would be no growth at all without fluctuations. Here is one of the best instances of a vicious circle of reasoning on the basis of a misplaced imputation of an effect to a wrong cause, mistaking a shadow for the substance. Fluctuations have not been the cause of growth nor are fluctuations inherent in the process of growth—fluctuations in the cyclical sense of the term. We can cite instances of growth without fluctuations and also of fluctuations without growth. The example of Soviet economic growth is the best instance of development without the usual cyclical fluctuations of a capitalist society. Similarly, fluctuations have also been there even in the backward areas of the world, without ever producing even the symptoms of growth. Fluctuations have thus been neither the cause, nor the consequence of economic development. They have been just a characteristic feature of the working of the capitalistic order. The end of capitalism would also mean the end of cyclical fluctuations as we understand the phenomenon today. What should rightly be attributed to the capitalistic order has been wrongly attributed to the process of growth.

Discoveries and inventions, the development of scientific knowledge, the application of knowledge to economic ends, the evolution of basic propensities conducive to economic growth, the overthrow of ideals opposed to economic development, economic ambitions propelled by military and political goals, the instinctive love of comfort, luxury and a glorious living rolling in prosperity etc., which have been at the root of economic development, can by no stretch of imagination be attributed to fluctuations. Nor have the anti-cyclical monetary and fiscal measures widely undertaken in countries like Britain cried a halt to further development. If anything, growth can get ahead much better without fluctuations.

This does not mean that trade cycle is only a matter of the past. Production under the rules of unbridled capitalism must necessarily lead to the usual economic fluctuations because of the retention of the causes which are held responsible for the ups and downs. Under-consumption, over saving, speculation, accumulation of inventories in order to take advantage of a possible rise in prices, rational projection of current economic trends into an uncertain future, the unaccountable ebb and flow of the waves of optimism and pessimism, the erratic behaviour of the stock exchanges etc., are bound to continue when production is carried on in an unco-ordinated fashion by a large number of individuals and when income develops a natural tendency to get concentrated heavily in the hands of a small minority. It is only when an agency like the state employs contracyclical budgetary and monetary measures that there is some possibility of a reduction in the amplitude of the fluctuations. Even limited state interference, however, is strictly speaking against the rules of the game. Even with an all vigilant state set against fluctuations one could not assert with confidence that trade-cycles would be only a matter of the past. Even with an integrated fiscal and monetary policy, the state might not succeed in completely eradicating trade cycles, because in a predominantly capitalistic order, the proportion of the economic activities which the state could influence by its own policy might not be really very significant. So long as the lure of profits continues, economic activity is bound to boom, despite the rules and regulations of the state. It is, of course, well recognised that taxation, public expenditure, government grants and subsidies, public debts, bank rate policy of the central bank, credit control, open market operations etc. can exercise a good deal of influence in directing the activities in the private sector of the economy. This is all the same no guarantee that the state would

succeed in completely eliminating trade cycles so as to justify the statement that 'trade cycle is now a matter of the past'

We may draw certain lessons from trade cycle theories for understanding the problems of growth of the backward areas but basically the two problems appear to be radically different. In spite of a good deal of scratching of the brain economic theoreticians have not been in a position so far to evolve a universally acceptable theory of growth. "The Wealth of Nations", the "Net National Product", the "National Dividend", the "National Income", as explained by Smith, Marshall, Pigou and Fisher could be taken to be older theories of growth. During the last twenty years there has been a plethora of literature on economic growth. The days of Schumpeter, Weber and Marx are also gone. We now have in the field, among many others, Lewis, Kuznets, Rostow, Colin Clark etc., but none of them has been able to evolve a rounded theory of development. There is however, a good hope that out of the fermentation of thought brewing at present, something concrete might emerge. If one hopes to understand the problems of growth merely by understanding the problems of fluctuations, one is very likely to be rudely disillusioned. The problem of fluctuations appears to be just a minor fry in comparison with the biggest problem of economic development.

POINTS TO REMEMBER

- 1 *History of capitalism reveals that growth has come about despite recurrent economic fluctuations*
- 2 *Growth and fluctuations—what is the cause and what is the consequence? Is there any relationship between the two?*
- 3 *What are the conditions for growth? Can we attribute the fulfilment of these conditions to economic fluctuations?*
- 4 *The fallacy of 'before this, and hence because of this'*
- 5 *Integrated fiscal and monetary policy to avoid trade cycles—"trade cycles" could not be a matter of the past*
- 6 *Factors that influence growth—different theories*

Q. Explain the relationship between the general level of wages and the rate of economic progress, both in advanced and developed economies.

(Gauhati 1960)

Ans. The rate of progress of a given economy obviously depends on the extent to which progress-promoting factors find fulfilment and obstacles to growth are broken. During a period of rapid economic progress, income-raising factors exercise a massive influence over the income-depressing factors in such a way that in successive periods of growth the productive capacity of a given economy goes on increasing in a cumulative process. The most distinctive hallmark of progress is the improvement in the productive capacity of a community which enables more and better of production at less and less of cost as a given economy moves onward on the path of progress. Improvement in productive capacity which one could take to be the most reliable indicator of progress could be brought about on the basis of better techniques of production, discovery of new resources, improving efficiency of labour, accumulation of capital, discovery of new markets, an improvement in the terms of trade; a progress oriented change in the governmental administration etc. It is awfully difficult to attribute economic progress to any one particular factor as such, especially so, because of the historical experience that economic progress in different advanced areas of the world has been brought about due to a variety of antecedent circumstances.

Presently, our task is to isolate the relationship between the general level of wages and the rate of economic progress, both in advanced and underdeveloped economies. We have defined the rate of economic progress to mean the rate of improvement in the productive capacity of the community. Therefore, we have to examine the relationship between the general level of wages and the improvement in the productive capacity of the economic system in (a) an advanced economy and (b) a backward economy. Further, this relationship between wages and economic development could best be examined by sifting the connection between the several factors which promote development and the general level of wages. We have

also to appreciate how certain changes in the general level of wages would help towards breaking the obstacles to growth. Our examination of the problem would obviously proceed on the assumption that the economic mechanism in question is to operate in accordance with the rules of a free society.

In an advanced economy, progress implies not so much a distinct improvement in the productive capacity, which by definition has already reached a high level, as the full utilisation of the capacity, already brought into existence. May it be noted that this does not adumbrate that a further improvement in productive capacity is no progress for an already developed economy. All that it implies is that the advanced economies are more concerned with the problem of stabilisation of employment and production rather than with the task of raising productive capacity from the 'boot straps' as is the case with the backward economies. We, therefore, have to examine the relationship between the general level of wages and the problem of stabilisation of the working of the advanced economies at a high level of productivity. Incidentally, a reference could also be made to the question of further improvement in the productive capacity of an advanced economy. The Keynesian school of thought has done a thorough job in thrashing this problem in all its details and we could do no better than picking up the principle strands of reasoning advanced by Keynesian order to understand the relationship between the general level of wages and economic progress.

For an advanced economy, progress mainly implies stabilisation and stabilisation depends on the continued, unfailing maintenance of aggregate demand for commodities as well as for factors of production at a level of full employment of the resources, available at any particular point of time. Maintenance of aggregate demand at a high level is the key to progress so far as the advanced economies are concerned. We have, therefore, to examine the relationship between the general level of wages and the maintenance of aggregate demand at a high level. The role of wages could be examined from two angles—(a) from the view-point of the employers who regard wages as a significant item of cost and (b) from the view-point of the workers who regard wages as the sole source of their income. It is the job of the economic analyst to appreciate both the view-points and co ordinate the two from the angle of the working of the economy as a whole.

In the capitalist societies high wages have always been regarded a hindrance to progress because of the eternal conflict between capital

and labour and because of the mistaken belief of the capitalists that "the lower the wages, the greater the profits". The capitalists have looked upon wages as no more than irksome costs to be suffered on the score of inevitability. It is not only the capitalists but even some of the top-ranking economists like Pigou who held that unemployment could be explained, by and large, in terms of wage-rigidity. Given a certain amount of wage flexibility, they thought, full employment would automatically be ensured and the economy would function smoothly without any hindrance. This snug belief of the pre-Keynesian era was totally blown up on the publication of the *General Theory* in the year 1936. Wages constitute not merely cost to the employers but they are the main source of demand for production. There is a depression of demand if wages be low because it is the wage-earners who have a high propensity to consume. It is now widely accepted that great inequalities of wealth and income, accompanied by the low propensity to consume of the rich is mostly responsible for the chronic deficiency of demand and hence, the instability of the capitalistic order. The remedy for instability is to prevent a fall in demand which in turn could be ensured best by upgrading wages and stimulating consumption. Over-saving or under-consumption theories of trade cycles hold that sagging demand could be buttressed only by stimulating consumption and investment in such a way that the total expenditure of the community would be enough to absorb all that has been produced. Harrod has pointed out the dangers of over-investment which more or less permanently raise the productive capacity and impose the necessity of corresponding order of repetitive expenditure if durable investments are to be continuously utilised. The danger of under-utilisation of capacity is inherent in all advanced economies unless wages are kept at a high level so as to ensure unfailing demand. Progress in the advanced economies could be ensured by a better distribution of income which in turn could best be done by reducing the size of profits, rent and interest in relation to wage. The advanced economies are not likely to be faced with the problem of a shrinkage in the investible funds of community due to a rise in wages. There is such a surfeit of capital in the advanced economies that the economic theoreticians think in terms of accelerated depreciation in order to keep the doors open for further investment! The problem in the backward economies is exactly the opposite.

In the underdeveloped areas of the world, the principal obstacle to growth has been the chronic shortage of an investible

surplus, accompanied by a technological backwardness, low efficiency of labour, the predominance of primitive primary occupations, resulting in a constant under utilisation of the known resources, let alone the fact that the resources of these areas need to be further explored. The relationship between the general level of wages and economic progress is more difficult to examine in the context of an under developed situation than in the case of the advanced economies. There are quite a few conflicting strands of thought. It is argued that wages in the initial stages of growth of a backward economy must be kept low in order to release as large a size of the national income as possible to form the investible surplus which is pointed out to be the condition for growth. A good deal of historical evidence from the early stages of growth of the currently advanced economies is proffered in support of the thesis that high wages in the early stages would be incompatible with the requirements of a growing economy. High wages would reduce the size of the investible surplus and thus would hamper the rate of growth of the economy. It is also pointed out that labour in the pre industrial situation is by and large inefficient and hence wages must also be low because of the productivity of labour. In the over populated, under developed countries of the world, the supply of labour, especially unskilled labour is so much in excess of demand that the general level of wages is ridiculously low.

It is often said that there is no incentive for investment in a backward economy because of the general lack of demand. The general lack of demand is partly due to the low level of wages. Labour is of a poor quality primarily due to the low levels of living of the workers necessitated by low wages. Marginal productivity of the workers is low not only because of the inefficiency of labour but also because of technological backwardness and inefficiency of management.

There is little to be gained by way of added investible surplus by cutting down wages. It would further reduce the efficiency of labour. Much could be gained by cutting the superfluous consumption of the rich to add to the investible surplus. In a backward situation, there is a much greater shortage of the human capital rather than the physical capital. We can never hope to build up the necessary human capital unless we ensure at least a living wage. As it is, the general level of wages is much too low to permit workers to build up their health and skill which is the very foundation

POINTS TO REMEMBER

1. *Definition of progress—improvement in productive capacity.*
2. *Factors that promote and those that hamper economic progress.*
3. *In an advanced economy, the conception of progress implies more a matter of stabilising economic activity and not so much a basic improvement in the productive capacity.*
4. *In a backward economy, growth has to start from the “grass-roots”.*
5. *In a developed economy, “wages” would be the main source of demand. Fallacious conclusions could be drawn by looking upon wages merely as “costs”.*
6. *There are good many gaps in a situation of under-development, the most important of which is human capital. Wages are closely concerned with the construction of human-capital.*

30

Q. “In a growing underdeveloped economy, the demand for money (at constant prices) would expand at a faster rate than the supply of output.” Discuss. (Bambay 1962)

Ans The primary issue that arises in this connection is the concept of the demand for money. The demand for money is a demand for money regardless of whether a country is developed or under-developed. The relevance of development, under-development and the process of growth is there in so far as they affect the demand for money. The central point is the demand for money in a growing economy at constant prices. Constancy of prices is a very unrealistic assumption in the context of a growing underdeveloped economy but, all the same, our analysis must be made on this assumption.

The demand for money is the demand for holding money as a means of ready purchasing power, rather than holding other assets which could be purchased by a person who has a certain

command over money The demand for holding money rather than holding other assets is termed liquidity preference and liquidity preference exists due to mainly three sets of causes as given by Keynes The precautionary, the transactions and the speculative motives play an important role in determining the demand for money People must meet unforeseen contingencies They have to bridge the gap between the receipts of income and the almost personal demands on their purses and thirdly, some speculators would like to hold money in order to avail themselves of the opportunities of reaping a fortune on the stock exchanges The liquidity preference of the people or the demand for money, increases or decreases in accordance with the changes in the motivation that accounts for liquidity preference If loans are easily available against assets at a cheap rate of interest, the liquidity preference would decline If the workers are paid at short intervals liquidity preference would decrease If rigorous restrictions be imposed by the government of a country on the opportunities for making a profit on the stock exchanges, liquidity preference would decline A decline in the liquidity preference is equivalent to a decline in the demand for money and a rise in the liquidity preference is an index of the increase in the demand for money

In a growing underdeveloped economy, there is a constant effort to raise the rate of investment in the private as well as the public sectors of the economy where both of them exist together or else, the rate of investment in the public sector alone goes on increasing in the process of development, as in a communist economy in which private enterprise is not allowed to exist The preparedness to invest is the preparedness to hold assets other than money and hence, in a growing economy in which investment keeps on expanding, the liquidity preference should go on declining or in other words, the demand for money should go on declining This, however, is a misleading conclusion To be able to invest, the entrepreneurs have to collect a sufficient amount of liquid cash and hence, the demand for liquid cash keeps on increasing This is amply evidenced by the fresh stream of stocks and shares that are issued by various joint stock companies or by the spurt in the demand for investible liquid funds from the banks and other financiers The loans floated by the government in order to be able to invest is also an instance of the demand for liquid funds for purposes of investment A decline in liquidity preference is meaningful only if there is a prior liquidity to be liquidated If the

prior liquidity is not there, there is no question of the willingness to invest. Thus in a growing underdeveloped economy, the demand for holding money increases in order to prepare the economy to create other assets. The demand for liquidity increases with a view to use the liquid funds for creating productive assets. The demand for investible funds is the demand for liquid money and thus, we come to the paradoxical conclusion that a decline in the liquidity preference so far as investment is concerned leads to an increased demand for liquid investible funds.

The process of economic development is nothing but the process of investment in diverse fields of the economy in order to create the necessary preconditions for a sustained rate of growth of income. The income that is generated because of investment creates a demand for goods and services in accordance with the multiplier principle. The total volume of transactions in the economy keeps on rising and hence, even if the prices remain constant, it is inevitable that the demand for money should keep on rising. If we accept Fisher's equation of exchange in terms of $MV=PT$ in which M stands for the quantity of money as represented by the amount of notes and coins and V stands for the velocity of circulation of money, i.e., the number of times that a unit of currency changes hands during a given period of time. P stands for the general level of prices and T stands for the total volume of transactions, the facts are clear that T keeps on increasing as the economy grows to higher stages of growth. Every increase in T necessarily postulates an increase either in M or in V . In fact, we should also introduce in this context the role of M and V which stand for the value of credit that is advanced by the banks and the velocity of circulation of credit respectively. A backward economy that aspires to grow fast has to meet the increase in the demand for money by increasing the supply of currency as well as by stimulating the expansion of bank-credit. V and U automatically expand in response to the growing needs of the economy. Demand is extremely brisk because of diminishing unemployment and the distribution of more and more of purchasing power in the community.

In addition to this normal phenomenon, there is the process of monetisation of the economy because, the mutual cancellation of the obligation to pay that takes place under barter disappears with the growth of the economy. The mediation of money to lubricate the exchange transactions becomes a normal habit and this is an added reason why the demand for money keeps on rising.

As against the increase in the demand for money which is nothing but the demand for expenditure, the supply of output is rather slow. The supply of output has to be slow in the conditions of backwardness of an underdeveloped economy since the infrastructure does not exist in the early stages and the sort of enterprise apart from governmental enterprise is not adequate to organise the production of goods in demand. Besides, investment in the first phase of growth is usually done towards the end of creating overhead facilities in the economy or creating the capital base. It takes quite some time for the capital goods to come into existence and further, some more of time for the consumers goods to flow, with the help of the capital goods thus created. Production lags behind investment since investment cannot mature into production all of a sudden. Inelasticity of output is however, a purely temporary phenomenon and the very purpose of development is to break that inelasticity.

That, in a growing economy the demand for money (at constant prices) would expand at a faster rate than the supply of output is evidenced by the fact that the process of growth is invariably characterised by the appearance of inflationary conditions in the economy. Excess of monetary demand in the context of inelastic or not particularly elastic supplies is the main cause for the appearance of inflationary conditions in the economy. In fact, prices cannot at all remain constant in a situation in which a continually swelling stream of money meets with a stream of goods and services that remains persistently thin at the early stages. The statement consequently appears quite valid.

POINTS TO REMEMBER

- 1 *The primary issue is the concept of the demand for money and the impact of the process of growth on the demand for money*
- 2 *The second issue is the elasticity of supply of output in response to the rise in the demand for capital goods as well as consumer goods*
- 3 *The third point is the explanation why the demand for money in the early stages of growth of a backward economy increases faster than the increase in output*
- 4 *The demand for money can be conceived in terms of the liquidity preference of the people or in terms of Fisher's equation of exchange*

5. *In a growing economy, the demand for funds goes on increasing on account of the transactions motive which becomes very powerful in the context of growth.*

6. *M , V , M' and V increase enormously in response to the demands of development.*

7. *Deficiencies of the infra structure, time-lags in production, society of private enterprise etc., account for the inelasticities in output in the short run.*

31

Q. Examine the view that integration of monetary and fiscal policies is essential for a policy of development with stability.
(Gujarat 1959)

Formulate a monetary policy for an underdeveloped country aiming at planned economic development.
(W.B.C.S. 1958)

Ans. Development with stability is really an excellent goal to aspire for, since there is certainly no point in living constantly under the threat of instability, having once attained a high stage of development. The depression of 1929 has left indelible scars on the minds of the economists, politicians and the business people alike especially of the industrialised countries of the West. Even today, we find that the U.S.A. is ceaselessly obsessed with the fear of a possible recession in business, resulting in all the usual horrors of shrinking profits, increasing unemployment, falling incomes, dwindling demand which push the economy down the steep slope of a depression. How to preserve the basic frame-work of the capitalist order and yet ensure a smooth and stable period of prosperity has been a challenging question to the economic theoreticians and the votaries of democracy ever since the days of the historic depression. The socialists argue that instability is inherent in the capitalist economies because of the lack of over-all co-ordination, great inequalities in the distribution of wealth and incomes which must necessarily lead to a shrinkage of aggregate demand owing to the

low purchasing power of the vast majority of the poor classes, the necessity for the rich to save a considerable proportion of their incomes because of their attaining the point of satiation so far as consumption is concerned and hence, a high propensity to save etc. Moreover, a certain amount of instability is inherent in producing for an uncertain market, in anticipation of a future demand. The socialists believe that there is no escape from instability, short of a total over all planning which brings about a co ordination of the activities of numerous individuals in the interests of the society as a whole.

The Keynesian school of thought has brought forward certain novel proposals which strike a compromise between absolute *laissez faire* on the one hand and total over-all planning under a totalitarian regime on the other. These proposals are embodied in their monetary and fiscal plans to regulate the working of the economic mechanism without the fear of the pitfalls arising out of the business cycles. These proposals usually go by the name of contracyclical budgetary and monetary policy.

Taxation, public expenditure, administration of governmental loans, public works, governmental grants and subsidies etc., form a part of the fiscal policy of the state. Monetary policy covers the regulation of the structure of interest rates, credit-control, open market policy, determination of the quantity of currency and coins in circulation etc. Monetary policy and fiscal policy are, really speaking, not two totally independent schemes which work on their own in their own spheres. It is too well known in the post-Keynesian era to need any emphasis that any economic policy has a series of repercussions throughout the economy. Taxation policy and fiscal policy are not only mutually complementary but in fact, taxation policy should be a part of the monetary policy of the state.

We are required to think in terms of bending fiscal policy and monetary policy towards the goal of achieving development with stability. When markets are booming, fiscal policy has to be so designed as to mop up the excess of money in the public hands. The state ought to have a surplus budget during a period of boom. A surplus budget implies not only heavier taxation but also reduced expenditure, so that governmental administration as a part of the economy does not contribute to the intensification of the boom which sets the entrepreneurs afloat on the wildest of dreams of amassing a huge fortune as early as possible before the boom booms.

out. It is necessary to curb excessive enthusiasm in order to avoid the crash, which is sure to come at a later date. Governmental debt-administration must also be synthesised in tune with the general anti-cyclical fiscal policy. The government has to raise loans rather than repay the same during a period of boom. There is no room at all for embarking on a scheme of public work when the boom is on. If anything, some of the works already started must be withdrawn from execution, if possible. This is, in substance, the essence of the fiscal policy to be pursued during a period of boom.

Monetary policy during a boom aims at reducing the accessibility of entrepreneurs to sources of easily investible resources. Raising of the bank-rate, selling of treasury bills to the public, raising the ratio of liquid deposits of the banks to the total advances, imposing rigid restriction on the banks in order to control their lending policy etc., are some of the monetary measures advised to be undertaken in conjunction with appropriate fiscal measures to combat a boom. These measures, however, may or may not work. When prices keep on soaring, entrepreneurs normally do not mind borrowing at a high rate of interest. The government can throw treasury bills open to the public but if there be better alternatives for investment, people with savings to invest may not buy the bills. The banks themselves might offer attractive terms to their customers and in spite of a higher liquidity ratio, they might do a roaring business. Defiance of actual physical restrictions is difficult but the lure of enormous profits might induce a large onopen business. Fiscal measures appear to be more effective because budgetary proposals are compulsory and not left to the sweet will and pleasure of private individuals.

Prevention of the occurrence of a depression is far more difficult. Tax-concessions, increased grants and subsidies, expansion of public works, repayment of loans to enable the public to spend more etc., are some of anti-depression fiscal measures. Lowering the bank rate, lowering the liquidity ratio of the banks, liberal discounting of bills, buying of shares etc., are some of the anti-depression monetary measures. In the face of sagging prices and dwindling profits, these measures might not suffice to fill the entrepreneurs with a robust sense of optimism to inspire them to intense economic activity so as to combat the onslaught of a depression.

Monetary and fiscal policies which might prove ineffective, taken independently, have to be integrated into a coherent single scheme so as to ensure development with stability. It is obvious that a frontal intensive attack should be much more powerful in its operations than a unilateral fiscal or monetary policy. Moreover, there is a certain amount of complementarity between the two sets of measures and, hence, both have to be taken together. The State can give a general direction to the course of the economy by its own fiscal and monetary policy, especially so in the advanced economies.

The fiscal and monetary measures envisaged for an advanced economy during a state of depression have to be duly intensified in the case of an underdeveloped economy aiming at a planned programme of development. The advanced economies are bothered about stability, having attained a high stage of growth. The backward economies have to design deliberately a clean break with a state of stable equilibrium at a low level of production and consumption. The process of development deliberately disequilibrates the economy in order to build up additional productive capacity. A planned programme of development necessarily implies an ever increasing expansion in the sphere of the state and hence, a corresponding increase in the fiscal and monetary activities of the state.

Where planning is partial, as in the case of India, the fiscal and monetary policies have to be so framed as to encourage large scale investment especially in the strategic sectors of the economy. Taxation must not discourage investment, must curb unnecessary consumption, must discourage functionless imports, must regulate the pattern of investment. Monetary policy should also seek to achieve the goal of increasing investment in desirable channels.

There has to be an integration of fiscal and monetary policy with the aims and objects of a planned programme of development.

POINTS TO REMEMBER

- 1 *The inherent instability of the capitalistic order—recurrent periodical crises—the threat of a depression always round the corner*
- 2 *The Keynesian diagnosis of the malady*
- 3 *The components of a fiscal policy—taxation, public expenditure, public loans etc*
- 4 *The constituents of a monetary policy—bank rate policy, open market operations, liquidity ratio of the banks, policy of the central bank towards money, etc*

5. *Contra-cyclical fiscal and monetary policy.*

6. *The role of money in promoting economic development on a planned basis.*

32

Q. Show how and to what extent monetary policy can be used to promote economic development.

(Allahabad 1960)

Discuss the relation of money to economic growth.

(Gujarat 1958)

Ans. To what extent monetary policy could be bent to subserve the ends of economic growth is a question of greater theoretical importance and of immense practical significance, especially to the underdeveloped areas of the world. During the last twenty years, no single topic has engaged the minds of eminent economists all over the world as the problem of economic development of the backward countries, covering between themselves about two-third of the human race. The problems confronting the underdeveloped areas of the world are so grave that all ways and means must be explored in the direction of promoting a rapid economic growth in order to emancipate billions of members of the human society from the strangulating hold of extremely low levels of income.

The advanced countries of the world have found, by experience, that monetary policy could be employed to liberate their economies from the cyclical ups and downs. Economists like Keynes, Hansen and Lerner have convincingly argued that there is a possibility of stabilising the working of the capitalistic order just by manipulating monetary and fiscal policy without seriously interfering with the rules of a free society. They have prescribed preventive and curative monetary measures to avert violent fluctuations in the advanced economies. Their diagnosis as well as prescription is obviously based on the experience of the industrially advanced countries. Perhaps by analogy, the question has now come up as to whether monetary policy could also be manipulated to promote economic growth of the backward areas.

There are economies and economies which could be called underdeveloped and it is rather difficult to examine the relationship between monetary policy and economic development in a general way, covering backward countries with different degrees of underdevelopment, due to a variety of distinct economic and social antecedents of their own. What immediately matters, however, for our purposes is the extent of monetisation in a given economy. Monetary measures could be expected to evoke the intended response to the extent that the backward economies have been monetised. Money could play a significant role to the extent that production, distribution, consumption, saving and investment are guided and governed by the influence of money. This is by far the most important condition for the successful manipulation of monetary policy.

The underdeveloped economies are characterised by the existence of a predominant primary sector comprising the extractive industries like agriculture, forestry and fisheries which are hardly monetised. Subsistence farmers who are numerically the largest, produce primarily for the consumption of their own families and the village artisans engage themselves in some economic activity mainly for barter. The wants of the vast majority of the rural folks are awfully meagre and hence, the need for exchange, especially in terms of money, arises only for a few basic commodities like salt and kerosene. It is found, for instance, that in a typical Indian village exchange in terms of money is confined to about only 30% of the requirements of the villagers, the rest being satisfied by the farmers on their own. The point to notice is that the scope for monetary manipulation in order to promote economic development gets severely restricted in the context of typical underdevelopment situation in which money plays only a minor role. The application of monetary policy postulates a highly monetised economic system like the one that we find in the industrialised economies of the world in which production assumes the usual form of $M \rightarrow C \rightarrow M$ —investment of money by the entrepreneurs (M) in order to make more of money (M) by producing commodities in anticipation of a future demand.

It is doubtful whether manoeuvring of monetary policy could be of much avail in the non-monetised subsistence sectors of the underdeveloped economies. Commercialisation and monetisation are the basic pre conditions for money to play normal role which

it usually plays in the advanced countries. The malady with the backward economies is far more serious and deep-rooted than with the advanced economies which periodically experience the ups and downs of business. Having built up a high level of productive capacity, the advanced economies run into occasional difficulties due to the anarchy of planning and the rashness of the expectations of the entrepreneurs. The monetary mechanism can be manipulated to pull an advanced economy out of the morass of business cycles because the basic requirements of production are already there and what is lacking is co-ordination. In a backward economy there is a scarcity of capital, technical knowledge and organisation, dearth of helpful attitudes and a shortage of almost everything except, perhaps, of unskilled labour and unexploited resources. Overhead facilities are awfully scarce and this acts as a disincentive for any sort of enterprise.

It is not easy to fill the basic gap in a situation of underdevelopment merely by pulling the monetary wires. Should a people be devoid of entrepreneurial ability how are we going to remedy the situation by devising an appropriate monetary policy? If the institutions of a given community are antagonistic to the spirit of progress, how are we going to change the institutions and change the attitudes the people by designing a suitable monetary policy? In the over-populated underdeveloped areas, if marriage be universal because of religious injunction and if people have a basic faith in uncontrolled reproduction, how are we to change their faith by a monetary policy? If there be an acute shortage of real capital, how are we to bring that capital into existence, by manipulating monetary policy? If the parents refuse to send their children to school because of their own foolhardy ignorance, how are we to change their attitudes, by a suitable monetary policy? It seems monetary policy must end in a fiasco in the non-monetised economies of the world, if one hopes to promote the economic development of such an area merely by devising an appropriate monetary policy.

Pessimism, however, would gradually change into optimism with increasing monetisation and with increasing significance of production for exchange rather than production for personal consumption. The monetised sector of even a backward economy can be greatly regulated in the interest of economic development by devising a suitable monetary policy. A lowering of the bank-rate, for instance, is likely to make money cheap and other things being

equal, this might bring about an improvement in the marginal efficiency of capital providing an incentive for more of investment. The open market operations of the central bank of a backward country could also be so manipulated as to make the money market easy. If this leads to a misdirection of investment, the central bank could apply selective credit-controls so as to direct investment into desirable channels. In fact, credit policy of the banks plays a decisive role in the economic development of a country and banking policy is largely subject to the overall supervision of the central bank of a country. The attitude of the central bank towards credit control is a part of the monetary policy of the state. The central bank could certainly exercise a certain amount of control over the private industrial and commercial banks in the interest of economic development. Finally, the quantity of money in circulation is eventually determined by the monetary policy of the state and this has a profound influence on the economic development of a country.

Monetary policy, as generally understood in the industrialised countries of the West cannot by itself achieve anything revolutionary in promoting the economic development of a backward country, unless that country possesses a significant monetised sector. Money policy, taken in conjunction with a planned programme of growth, can go a long way in breaking the barriers to growth.

POINTS TO REMEMBER

- 1 *Monetary and fiscal policies have been employed in the advanced economies to curb the amplitude of cyclical ups and downs, Can we use monetary policy to promote growth as well?*
- 2 *The role of money in a typically non monetised backward area*
- 3 *Production for subsistence is different from production for exchange in terms of money*
- 4 *Monetisation is a necessary condition for the useful employment of monetary policy to promote growth*
- 5 *The contrast in the maladies of an advanced and an under-developed situation*
- 6 *Limitations of monetary policy in an underdeveloped area*

Q. Critically analyse the employment policy adopted by our planners for India's Five-Year Plans. (Calcutta 1961)

Why is the backlog of unemployment continually increasing in spite of our development efforts? What steps should be taken to reduce this backlog of unemployment during the third Five-Year Plan period. (Calcutta 1960)

Analyse the complex problem of unemployment in society. Show how you would proceed to effect its cure.

(Calcutta 1961)

Ans. The problem of unemployment is really complex. Providing a suitable job to every employable worker is a necessary condition not only to provide a means of living to the workers and their families but also to prevent the great wastage of labour which unemployment necessarily entails. Labour is the most perishable of all the commodities and labour-time lost is lost for ever. The colossal loss of labour that exists in our country persistently year after year is a loss of so much of potential income. The commodities which could have been produced with the help of the workers are not produced at all because the labourers are forced to remain idle. The great amount of frustration and moral debasement that the unemployed workers have to undergo is a needless misery which could, perhaps, be avoided, if effective measures are undertaken to solve the problem of unemployment.

The prevalence of unemployment implies that the existing supply of labour at the ruling wage rate in the labour market is very much in excess of the demand. The shortage of demand for labour can be explained in terms of various reasons. Demand for labour is generally the demand for the commodities which the workers produce since the demand for labour for direct consumption purposes as in the case of domestic servants is only a small fraction of the demand and could be regulated when we propose to analyse the problem of unemployment in the economy as a whole. Consequently demand for labour can be taken to mean the demand for commodities which the workers are to produce. This is particularly so when the techniques of production remain constant and the proportion of labour that goes into the making of commodities as

against the proportion of the other factors of production remains constant. More of demand for commodities would automatically mean more of demand for labour when techniques are assumed to remain the same. This is quite a reasonable assumption in the context of the underdeveloped economies since the techniques change rather slowly with the gradual impact of modern methods of production.

A shortage of demand for labour should mean, therefore, a shortage of demand for commodities of the various types which the workers can produce. The workers of the type that we have in India can produce only those commodities which do not demand much of stock and much of complicated machinery etc., since the bulk of them are uneducated and don't have any capacity to undertake even a small investment. Most of them are fit only for unskilled work based on manual labour. When workers of this category remain unemployed, it means that the sort of jobs which they can undertake are inadequate. It is pretty common to find a large number of manual workers out of job during off seasons in agriculture, forestry and fisheries due to climatic reasons. It also means that they cannot do much during their off seasons to produce anything new or anything to which they are not accustomed. There is neither the knowledge, nor the organisation, nor the necessary guidance about the sort of things that could be sold in the market. So far as the problem of unemployment of the skilled and trained workers is concerned, again, it implies that the commodities which their services could turn out are not in demand sufficient to absorb all of them who are prepared to work. In any case, unemployment of any category of workers necessarily implies that the product of the labour of that type is not so much in demand as to absorb the whole of the lot or it might also mean that the demand that exists is being met with the help of such techniques of production as do not permit the absorption of the whole lot of labour of that category that is available in the market.

In the case of underdeveloped countries like India the bulk of the people are compelled to live under conditions of such low levels of income that the total demand for various goods and services is not adequate to absorb the entire supply of labour. The inadequacy of the demand for labour is the inadequacy of demand for the commodities which the workers can make and that, in turn, is the result of inadequate purchasing power of the bulk of the people. The bulk of the people have extremely low levels of purchasing

power, not merely because of inequalities in the distribution of income but because of the low size of the net national product. Even if a state of inequality in distribution be achieved in a country like India, aggregate demand for goods and services would not be adequate to achieve a state of full employment. The national income itself has to improve radically in order to create adequate purchasing power in the hands of the bulks of the people and this condition demands a riddance of the state of backwardness. This is to say that full employment is not possible of achievement unless the economy grows to a high level of income. Unemployment in this context appears to be a typical feature of undevelopment as distinguished from unemployment in the down-swing of trade cycles. A mere artificial stimulation of demand for commodities is enough to set the wheels in motion and to absorb the unemployed workers in the context of a developed country in depression. This sort of a remedy, if applied to the undeveloped countries, could produce the worst of inflation. Demand would grow faster than the possible increase in the supply of commodities, without making any noticeable dent on the volume of unemployment. The missing links in the structure of the economy are far too complex in the backward economies. It is not merely demand that is missing. The deficiencies on the side of the capacity to supply are also equally serious. The workers can be employed to produce the goods in demand only if the enterprise, machinery, raw materials, knowledge of the market conditions etc., could come forth in adequate measure to avail of the demand in the market. A shortage of the necessary factors of production on supply side can be as much an obstacle to employment and production as the deficiencies in demand. The Keynesian analysis of unemployment applies to the backward countries so far as the demand side is concerned but it is very much inadequate because of the fact that it does not concern itself with the difficulties on the supply side. In the case of the underdeveloped economies the problem is much more complex than in the case of the advanced economies. A simple public works programme would hardly be enough to solve the problem of unemployment in a backward economy. The problem of filling the missing links in the complex cobweb of the economy is highly time-consuming. With the passage of time unemployment becomes more and more acute if the links are not constructed fast enough. Every year new cohorts of workers join the labour market as the boys and girls grow up and join the ranks of the workers. If job

opportunities do not keep pace with the growth of the labour force, the backlog of unemployment keeps on increasing. This is what is happening in India today. In spite of the enormous investment that is being done in public as well as the private sectors of the economy, the backlog of unemployment keeps on growing. The impact of the cumulative growth of population over time is felt on the labour market as job seekers keep on humming and hovering around the places of work to meet "no vacancy" and turn red in the process hoping that 'the red' may provide some salvation. The total investment that is being done is much too inadequate and it is so hard to improve the rate of investment in view of the generally low levels of income. Even at throw away prices the buyers of labour cannot buy the whole supply that is available.

POINTS TO REMEMBER

1. *The problem of unemployment is extremely acute in countries like India. There is a lot of needless misery, moral debasement and loss of potential production on account of unemployment.*

2. *The demand for labour runs very much short of the supply when there is large scale unemployment. In India the demand is short of the supply even at the throw away prices of labour.*

3. *Demand for labour is generally the demand for the commodities that the workers make. A shortage of demand for labour is the same as a shortage of the demand for commodities.*

4. *In the backward countries demand is short because of the low purchasing power of the bulks of the people.*

5. *It is not deficiencies in demand alone that account for unemployment in the backward countries. The deficiencies on the supply side also are equally serious.*

6. *A mere creation of demand for commodities may result in inflation if the supplies are not elastic due to the missing links in the productive structure of the backward economies.*

7. *The backlog of unemployment goes on increasing because of the fact that the labour force grows faster than the improvement in the opportunities for employment.*

SOME ADDITIONAL IMPORTANT QUESTIONS

34

Q. How far is it legitimate to attempt to explain relative prices by a real theory and the level of prices by monetary theory ?
(Poona 1966)

Ans. In the classical economics the tradition has been to deal with the theory of prices and the theory of money separately. There the use of money in the theory of prices was only of the nature of accounting media. Since the calculations had to be made in some form and since the analysis had to be represented in some common denominator, therefore the use of money was made to that end. It was a numeraire, an accounting unit. If money was counted as one of the commodities whose determination of price is to be considered, then the value of money was assumed to be unity by definition and the prices of all other goods and services were expressed in terms of money. The value of money in terms of money was always constant though the value of other goods in terms of money would not be so. The whole problem of pricing thus broke up in two parts. The relative prices of the goods were expressed in terms of money but had no relation to the absolute level of prices. All prices could be doubled or changed by any proportion and the relative prices would remain unaffected. The reason for this is obvious. Relative prices are ratios. So long as all the items appearing in the ratios change in the same proportion, the values of ratios remain constant. The second aspect of the problem namely that of the absolute level of prices was quite distinct from the one discussed above. Here we could keep the relative prices constant and just find out any or all the price changes that took place within a given period. This would tell us that the absolute prices depended upon the quantity of money and the quantity of goods to be exchanged against that. In other words, the approach was that of quantity theory of money which stated that the absolute price level depended upon the quantity of money and varied directly with the changes in it provided no corresponding change took place in the quantity of goods to be traded.

This simplified approach had its golden days. But soon the loopholes in it were recognized and efforts were made to bring about a better co-ordination between the two wings of analysis which appeared to be complementary rather than substitutes of each. It was obvious that for a comprehensive and integrated view of the situation we needed a synthesis of the existing monetary and real price theory. In the older approach, real prices, though expressed in terms of money, were made to depend upon the real demand and supply forces in the economy. These demand and supply forces were dependent upon not the expected changes in prices of the goods in question. Price changes were neutral in generating any further waves of demand or supply. All price changes were limited to the function of clearing the markets only and their job ended there. It was the duty of other forces like fashion tastes, the supply of labour and capital, the development in technology etc., which went to determine the level of demand and supply. It is curious to know how those economists could so flagrantly ignore the effects of price changes on the future demand and supply. Price expectations were totally ignored. The theory of growth which is based upon the rates of changes of factors of production and their utilization, cannot be complete unless we bring in the role of expectations. No long term investment in a dynamic society can take place unless there are expectations. The rate of interest is, for example, directly associated with future prices of securities and other financial aspects. It is conceded even by the classical economists themselves that in static state there will be no profit income. Then how can we leave the two sides of the picture unconnected like this? Surely there must be an attempt to integrate the real side with the monetary one to give us a complete theory dealing with reality of price determination.

The need for the integration of real and monetary theory is still more clear if we think of the sectoral behaviour of the economy. When we talk of the relative prices or of the general price level, it does not mean that all goods and services in the economy must behave with an equal impetus. Whenever there are changes they are different for different sectors. For certain sectors are more flexible and sensitive to fluctuations in the demand and techniques of supply. Other sectors may be more obstinate in their behaviour. Actually the concept of general price level has no meaning in the context of the problem. What is needed is the explanation of the sectoral price levels and the interaction between them. The reactions of every sector will be subject to a variety of forces including both real and

monetary forces. It will be a mistake to leave one category of forces and use only the other for explanation of the prices.

It must be emphasised that these days the role of financial assets and credit instruments in determination of price ratios is being recognized. If we are not interested in analysing the sectoral changes, then we may for the sake of simplicity ignore the distributional effects of the financial assets into various categories and the relative price variations in those financial assets. But mostly, we would be interested in analysing the role which the financial assets and their distribution between various categories have to play. It will matter a lot as to what happens to be the source of credit, what is the rate of interest and so on. The demand for real assets and goods and services is partly independent and partly dependent upon the monetary forces. Similarly the demand for financial assets, money and credit will depend upon the changes in the real demand and supply of factors. The flow of real investment and the savings stream will have to be taken into account to make the demand analysis of financial assets and the forces which determine the creation of credit more realistic.

Furthermore prices need not respond only to monetary forces, they may act in defiance to these forces or may be in operation without monetary forces being there. Thus in war the very diversion of productive capacity towards armaments would lead to inflationary pressures. In a country there are always new ideas and technology to take into account. These changes lead to imbalances in the economy. Some factors become obsolete and unemployed. The demand for some factors increases leading to an increase in their prices. On top of it we have to note that by their very nature, technical innovations cannot augment the demand for all factors evenly. The supply of land cannot increase. That of labour can be increased very slowly as compared with that of capital. These resource imbalances are bound to upset the existing price and cost structure. Discovery of minerals and so on often add to these imbalances. Though in the long run there is a tendency for these imbalances to even out, yet in the short run there are bound to be fluctuations in the relative prices also. Again we find that in every economy, there will be population changes. In most of the countries population will be rising. This will automatically increase the demand for many goods and services. But certainly the demand will not increase for everything in the same proportion. This again

means that there will be variations in the general price level, and there will be certainly sectoral price variations

Again, variations in interest rates have both to do with real investment and with the behaviour of financial assets. The classical economists thought of interest only as the price of savings and will represent the marginal productivity of capital. Keynes pointed out that rate of interest is really a price of money paid for parting with liquidity. Later theories have reconciled the two extremes in the form of loanable funds theory. According to this theory, rate of interest depends upon both the savings and the credit creation on the one hand and the demand funds for both investment and consumption on the other. Anyway the point is that there is an intimate interaction between the real and financial world and the rate of interest plays an active role in the determination of both monetary investment and real capital formation in the country.

It follows that we are not justified in trying to explain the determination of relative price level with the help of real theory and the determination of general price level with the help of monetary theory. An integrated approach has to be attempted. The justification of their separation lies only in the fact that we are not to ignore either of the categories of forces. A detailed and probably separate analysis of each of the categories will help us in understanding the totality of forces at work.

POINTS TO REMEMBER

1 *The classical economist kept the analysis of general price level to the theory of money and that of relative prices to the theory of real demand and supply. To them money was only a numeraire.*

2 *But the need for an integrated approach can be established in many ways.*

3 *The problems of sectoral imbalances cannot be ignored. The concept of general price level has only a limited validity.*

4 *The role of expectations can be taken into account only if we give monetary theory its due place.*

5 *We have to think of the total and distributional flow of financial assets and the stream of goods and services. And there is an interaction between the real and financial forces.*

6 *A number of real forces may be influencing prices with or without the play of monetary forces, such as war, population, technical innovation etc.*

7. *There is the rate of interest which influences both the real forces and the monetary ones.*

8. *We are justified in separating the analysis of relative prices and general price level only to a limited extent.*

35

Q. Keynes' 'discovery' of the consumption function must be regarded as one of the major 'breakthroughs' of modern economics. Discuss.

Ans. With the advent of the Industrial Revolution and the advancement of industrial capitalism, the problems connected with various types of inefficiencies and defects of capitalism came to the forefront. Efforts were made to understand the working of the capitalist system of the economy. But at the same time, for natural reasons, pure theoretical analysis also grew. This analysis had two main channels, one was a simplified version of reality, which assumed away the bitter defects of capitalism and tried to put forth only the beneficial aspects of the productive forces released by capitalism. The other line was trying to analyse the defects of capitalism and the underlying causes thereof. To put it more concretely, the reality was that the economy was simultaneously exhibiting tremendous forces of production coupled with increased and open social and economic injustice and the instability of the economic system. Some tried to assume away these fluctuations and put forth only the long-term trends; while others tried to explain these fluctuations and suggest remedies. Say was the most eminent exponent of the first line of thought. He put forth his famous thesis that supply creates its own demand and that there are self-correcting forces within the economy. His views were championed by Ricardo. The opposite line was taken by Malthus. He put forth the plea that there could be a deficiency of effective demand even for the economy as a whole. Say permitted only partial gluts and scarcities; but Malthus believed that there could be general gluts and scarcities too. This controversy between Ricardo and Malthus became the topic of the day. The result was that those who believed in

Ricardian line of thought ignored the problem of income determination and its distribution leading to a sufficient or insufficient effective demand. Those who followed Malthusian line of thinking were concerned with the task of what determined the total quantum of national income in real terms and the corresponding national income in money terms. This correspondence or lack of it between the two facets of national income and the distribution of it between different components would be able to tell us whether there would be a general glut or scarcity. It was also a big step towards understanding the determination of national income and its fluctuations. The problem of trade cycles and unemployment together with that of occasional inflationary and deflationary pressures was the subject of study for the Malthusians.

Unfortunately the trend of economic thinking veered to that of Ricardo and Malthusian thinking on the problem of effective demand was ignored. In his case only his population theory remained in vogue. Partly this might have been due to the fact that Malthus was suggesting a reactionary remedy for the solution of unemployment and over production—distribution of extra purchasing power to landlords which could not be acceptable to the people under prevailing political circumstances. Whatever be the reason the result was that the theory of income determination was relegated to the background. The study of the theory of consumption became the study of laws which determined the distribution of his expenditure of given amounts over different lines of expenditure. The relation of these consumption decisions with the problem of income determination and prices did not figure in the analysis.

The problem of income determination not only remained important it became more acute with the passage of time. The intensity of trade cycles went on increasing. Unemployment problem became more acute with the appearance of every new trade cycle and the traditional consumption theory only went on harping the psychological aspects of utility and its relation with the consumption decisions of a consumer. The Great Depression of 1930s set Keynesian thinking along the lines to determine the causes of income determination and the true explanation of trade cycles. Till then even Keynes was just a classical economist trying to analyse the problem of price determination and harping upon the quantity theory of money ignoring the positive role which money played in determining the total effective demand and therefore the

level of income and employment in the country. But now Keynes addressed himself to the primary task of the analysis of income determination. As Keynes said in his Preface to the General Theory :

"The matters at issue are of an importance which cannot be exaggerated.....When I began to write my *Treatise on Money* I was still moving along the traditional lines of regarding the influence of money as something so to speak separate from the general theory of supply and demand. When I finished it, I had made some progress towards pushing monetary theory back to becoming a theory of output as a whole. But my lack of emancipation from preconceived ideas showed itself in what now seems to be the outstanding fault of the theoretical parts of that work,that I failed to deal thoroughly with the effects of changes in the level of output. My so-called "fundamental equations" were an instantaneous picture taken on the assumption of given output. This book, on the other hand, has evolved into what is primarily a study of the forces which determine changes in the scale of output and employment as a whole ; and, while it is found that money enters into economic scheme in an essential and peculiar manner, technical monetary detail falls into the background..... But our method of analysing the economic behaviour of the present under the influence of changing ideas about the future is one which depends on the interaction of supply and demand, and is in this way linked up with our fundamental theory of value. We are thus led to a more general theory, which includes the classical theory with which we are familiar, as a special case "

The role of the consumption function in the determination of total income in the economy will be more clear if we quote from Keynes himself, Chapter 8. He says : "The ultimate object of our analysis is to discover what determines the volume of employment. So far we have established the preliminary conclusion that the volume of employment is determined by the point of intersection of the aggregate supply function with the aggregate demand function..... But, in the main, it is the part played by the aggregate demand function which has been overlooked."

Keynes showed that total effective demand depended upon and was the sum of investment demand and consumption demand. Investment demand was to fill the gap between the consumption and income levels (was to equal the savings of the community), if

total effective demand was to be high enough for maintaining the existing level of income in the future as well. Further, while investment tended to decline due to falling efficiency of capital, consumption was to fill the gap. It was, however, found by Keynes that even consumption tended to decline as a proportion of income with the rise in income and as such widened the gap between the existing income and the ensuing effective demand. If income was to be maintained then we had to fill the gap of savings either by increasing investment or by increasing consumption or both. It was found, however, that an increase in consumption not only increased effective demand as such it also boosted up the marginal efficiency of capital and thereby encouraged investment. Thus consumption had a bigger role to play in the game.

It was also found that while investment had no relation to income distribution as such (investment was not dependent upon savings as the prerequisite), consumption varied with income distribution. Marginal propensity to consume was lower at higher income levels and higher with the poorer people. A mere re distribution of income would change the effective demand and therefore the level of national income. The Government could remedy a number of deflationary situations by merely redistributing tax and other burdens, by redistributing the benefits of public expenditure and by changing the availability of purchasing power to various sections of the community.

Marginal propensity to consume is directly related to the concept of multiplier. Effective demand and expenditure do not finish up with the first round of expenditure. There are rounds after rounds of them. The value of the marginal propensity to consume will determine the change in the total income with a given initial consumption or investment expenditure. It is with the help of multiplier that we are able to judge to what extent we should change the initial expenditure to achieve a given change in income. At the same time, with increase in income marginal propensity to consume falls and the net incremental effect on income goes on reducing. In other words, we can build up a theory of income, fluctuations with the help of multiplier. And this is what exactly was done by Samuelson in 1939. He made use of the concept of multiplier and the concept of accelerator (given by Harrod) to give us a theory of trade cycles. Hicks elaborated the same theme in his 'Contribution

to Trade Cycle Theory'.

Thus it is easy to see how Keynes' 'discovery' of consumption function was a landmark in the development of modern economics. This pathbreaking analysis has been further taken up by various economists and developed in terms of growth models and capital formation. The theory of balanced and imbalanced growth also has its base on Keynesian analysis of income determination.

POINTS TO REMEMBER

1. *Industrial Revolution and capitalism brought to the forefront the problem of income determination and fluctuations in it.*
2. *But the challenge was not taken up by all. Malthus tried to develop the theory of deficiency of effective demand but was overshadowed by Say's Law and Ricardian theory of Stationary State.*
3. *The result was the neglect of the theory of income determination till Keynes effectively built up its case again.*
4. *The problem of income determination became more important with the passage of time.*
5. *Keynes completed his analysis of income and employment determination by the publication of the General Theory.*
6. *Total income is the sum total of total expenditure, which in turn is the sum of consumption and investment expenditures.*
7. *With a rise in income the marginal efficiency of capital falls and so does the marginal propensity to consume. The result is an ever widening gap between the income and the effective demand which has to be made up by additional investment or consumption expenditure.*
8. *Consumption expenditure by itself has the effect of encouraging investment also.*
9. *Consumption is also related to multiplier. Samuelson used it in conjunction with accelerator to give us a theory of income fluctuations. Hicks elaborated the same in a full fledged theory of trade cycles.*
10. *This Keynesian analysis has paved the way for the development of growth theory as well.*

SELECT READINGS

1. Keynes : *The General Theory of Employment, Interest and Money.*
2. A.H. Hansen : *Guide to Keynes.*

3 Hicks *A Contribution to the Trade Cycle Theory*

4 Harris *New Economics*

36

Q "Keynes' policies to remove unemployment in underdeveloped countries will plunge those economies into inflationary spiral" Elucidate (Poona 1965)

Ans Keynes faced a peculiar problem for analysis. He concerned himself with the task of finding out the causes of wide spread unemployment in most countries of the world during the great depression of 1930s. To begin with he classified unemployment into three categories, viz, (i) voluntary, (ii) involuntary and (iii) frictional. Voluntary unemployment was that which existed because the workers were not ready to offer themselves for employment at the going wage rate. In every society such voluntary unemployment exists, mainly in the ranks of women, old people and children. The second category, namely that of involuntary unemployment was that wherein the workers were ready to offer themselves for employment at the going wage rate but were not able to get employment because of deficiency of demand for labour. The third category was that of frictional unemployment, which was the result of ordinary labour mobility. Of these various categories, the classical economists did not admit the possibility of there being involuntary unemployment on a permanent basis. They just believed in the voluntary and frictional unemployment and therefore, for them there was nothing to analyse as far as the problem of employment was concerned. Keynes, however, insisted that the real problem was of involuntary unemployment which prevailed due to the lack of effective demand.

Keynes proceeded to find out the causes of this involuntary unemployment. He chose a developed capitalist country as the scene of his analysis and accordingly made a few simplifying assumptions. His line of argument runs as follows:

The producers in a free enterprise economy produce and invest in response to demand. Their aim is to earn profits by sales and they can sell only if there is demand. Total demand in the country

is the summation of consumption demand and investment demand. Both these demands depend upon various forces, such as the propensity to consume, the marginal efficiency of capital, and the rate of interest. If, therefore, we find that in the economy there is unemployment, then we should increase effective demand through consumption and investment expenditure. The more we are able to maintain total expenditure, the more we will succeed in maintaining demand and full employment.

He assumed that a free enterprise economy is having excess productive capacity. As a result, with increase in effective demand there will be increase in production and the problem of increased demand leading to inflationary pressures would not arise. Production, to Keynes, was fully responsive to demand. There was no gestation period. Additional investment did not have to wait for the fruition of the efforts. All new investment was in reality going to be in working capital and raw materials and labour, just to revive the existing production capacity and not to create the new one. Furthermore, Keynes assumed that the working of the principles of marginal propensity to consume and the marginal efficiency of capital would ensure that total demand would never be excessive. Rather we would have to make constant efforts to keep the effective demand up to the desired levels. As demand increases leading to increased output and income, marginal propensity to consume shows a decline. At the same time the marginal efficiency of capital falls. These downward tendencies have to be counteracted by public investments, and lowering of the interest rate.

Keynes' analysis maintained that an increase in effective demand automatically meant an equivalent increase in money income because all expenditure is received by the members of the society. It also meant an equivalent increase in employment because to meet higher demand the producers will have to hire more labour. They cannot produce more without increasing employment because production techniques are given and investment in fixed capital has already taken place. Given the above assumptions, an increase in employment would automatically stand for an increase in output also. Thus on no account there would be a rise in prices. Prices can be assumed to be given and all the analysis can be conducted in terms of real goods or services. Keynes conducted his analysis in terms of what he called the wage goods.

Given Keynesian approach, therefore, the solution to the problem of unemployment in a developed country is simple. The basic cause there was the deficiency of effective demand. And this effective demand was being pushed down by the forces of propensity to consume and efficiency of capital. The main line of attack should therefore be to improve the marginal propensity to consume and marginal efficiency of capital. Thus Keynes advocated that (i) we should undertake public works programmes and (ii) we should increase consumption expenditure through various types of aids and allowances and deficit financing. These actions not only would increase demand as such, they would also improve the marginal efficiency of capital and thereby lead towards still greater demand.

Quite often Keynesian analysis has been advocated for application to underdeveloped countries. It is maintained that an underdeveloped country also suffers from acute unemployment and by adopting Keynesian method it should be possible to remove unemployment. But they forget that in this case, there is a fourth category not found in developed countries. This is the category of disguised unemployment. The advocates of Keynesian remedies are correct in asserting that there is a deficiency of effective demand in underdeveloped countries also. But they forget that this deficiency is not all round. It is only with regard to capital goods. There is an ever increasing and insatiable demand for consumption goods. The need is not to raise the demand for every good and service but only for capital goods and at the same time to *keep the demand for consumption goods low*.

When we come to the problem of unemployment, the existence of disguised unemployment makes the task a complicated one. Here the answer is not to increase demand. The answer is to provide opportunities for employment by creating the employment capacity in the economy. There is a deficiency of capital in the country. Because of this labourers are not able to find work. Technically we may say that there is full employment in the sense that increased demand cannot lead to increased output. The need is to create capital and thereby provide opportunities for employment rather than create additional demand which cannot be satisfied by the existing production capacity of the economy.

Furthermore, in an underdeveloped country, there happens to be a high marginal propensity to consume. If we undertake any

investment project, it will very soon lead to a tremendous increase in demand for consumption goods and services. It is not so easy to increase the production of consumption goods. Either we have to import them or we must first create machinery etc. to augment the production capacity of these goods. Either way, the result is that we are faced with a long gestation period. The demand meanwhile goes on increasing due to increased money expenditure and investment. The suggestion that the Government should undertake deficit financing to increase demand is also misplaced in this respect. If deficit financing is undertaken to increase consumption demand, then clearly it will be inflationary in nature. If deficit financing is undertaken to implement projects of capital goods, then again efforts will have to be made to mop off the additional purchasing power, lest it should lead to inflation.

The main point is that the conditions prevailing in the under-developed countries are fundamentally different from those in the developed countries. In developed countries the problem is of creating demand, here the problem is of creating resources. In one case the remedy is monetary in nature, in the other the remedy is the growth of the economy. Just increasing demand would not be able to produce resources in the country. Unless resources are created, unemployment cannot be relieved. Increasing investment without regard to the production schedule will only lead to excessive demand which the economy would not be able to meet and thus prices will increase and involve the economy in an inflationary spiral.

The real solution lies somewhere else. It lies in raising the rate of capital formation and reducing the rate of population growth. Deficit financing is no remedy in this case. Keynes was advocating the adoption of public programmes even if they were not meant to augment production. But such a procedure would not lead to an increase in effective employment because there would be no increase in output alongside. The only result will be an increase in an imaginary employment figure. Price would soar up and inflationary spiral is likely to develop if this method is persistently followed. On a temporary basis, the Government may adopt labour intensive methods to relieve unemployment.

POINTS TO REMEMBER

1. *The Classical economists did not believe in the existence of a permanent involuntary unemployment.*

2 Keynes thought of this and proceeded to analyse the cause of unemployment

3 He assumed

- (i) short term,
- (ii) a devoted free enterprise economy,
- (iii) excess capacity,
- (iv) low marginal propensity to consume,
- (v) quick response of supply to changes in effective demand

4 In his analysis, money income, employment and output all moved in the same direction and in the same proportion

5 Therefore the remedy for unemployment was clear. The Government should

- (i) raise marginal efficiency of capital,
- (ii) lower rate of interest,
- (iii) increase consumption through various methods,
- (iv) undertake public investment programmes without regard to their productive potentialities

6 In underdeveloped countries, these assumptions are not applicable

7 There is the disguised unemployment. There is high marginal propensity to consume, but it is not applicable to capital goods, there is the problem of long gestation periods

8 Here if we raise the demand, the result will be increase in prices. Techniques of deficit financing etc are not useful here. The need here is to increase capital and not demand

9 We should reduce population, adopt labour intensive techniques and increase capital supply

SELECT READINGS

- 1 Klein *Keynesian Revolution*
- 2 Harris *New Economics*
- 3 V K R V Rao Investment, Income and Multiplier in an Under developed Economy, *Indian Economic Review*, 1952

Q. Do you agree with the view expressed in some quarters that it is not possible to maintain full employment even though we may be able to achieve it? Give reasons for your answer

Ans. The theory of employment as advanced by Keynes has been a subject of great controversy and discussion. There have been thinkers who would agree fully with Keynes, while there are others who think that Keynesian theory essentially belongs to the realm of imagination. In due course of time, however, it has been recognised that the basic controversy was due to the misunderstanding of the assumptions which Keynes was making and the expectation that his analysis was applicable to reality in every economy. Probably, Keynes himself was partly responsible for this misunderstanding, for he was trying to emphasise that his analysis was a solution to the unemployment problems faced by the free capitalist economies in 1930's. He made certain assumptions which have now been clearly understood. For example, it is now known that he assumed a short-term period; that there was an excess unutilised capacity in the economy and there was unemployed labour. He also ignored the problem of price changes and so on. On the basis of clear understanding of these assumptions now it is believed that whatever Keynes said was true to the economies satisfying those assumptions. In other words, the remedies which Keynes suggested for the achieving of full employment were fully acceptable to the economists.

But as Keynesian analysis itself points out, there is always a tendency for under full employment in the economy. The basic psychological functions upon which the working of the economy depends lead the economy towards underemployment. The Government has to make constant efforts to maintain the economy at full employment level. However, Kaldor has pointed out that even with constant efforts, the State cannot maintain full employment. It can ensure the first achievement of full employment, but having attained

it, it is a difficult task to retain it. He rather believed that it was impossible to maintain full employment. In other words, Kaldor's contention is that the causes of unemployment are to be found not only in the factors mentioned by Keynes but in some additional factors as well. Furthermore, Kaldor maintains that the understanding of those factors is not sufficient to enable us to take actions that would ensure full employment. These factors can only tell us the way we should achieve full employment. The real problem remains as to how to maintain it.

The first thing to be noted is that Keynesian methods of achieving full employment are applicable to short period only. Here the total productive capacity of the economy is a given thing. But the maintenance of full employment is a long term phenomenon. Long term behaviour of the economy involves economic growth. The total quantum of the factors of production do not remain constant. They go on changing even in a stationary economy. In such an economy, the distribution of factors and their structural composition are subject to changes. And in a dynamic economy, which happens to be the real economy, there is always dynamism. Age composition, sex composition, and the size of the population are changing. So is the case with the division between the technically trained and unskilled labour. Similarly the supply of capital, its composition and so on will be under constant change. There will be a constant stream of inventions revolutionising the existing set of techniques of production and so on. Keynesian theory is unable to deal with these changes and is not able to tell us what to do to maintain full employment over long period.

Another important consideration is the meaning of full employment itself. It is a tricky term and does not lend itself to a precise definition. The problem is that in an economy, there happens to be a large supply of a variety of factors of production. The exact need of each factor will be a function of the techniques of production and the level of activity in the economy. Thus in a country where the production techniques are predominantly labour intensive, a given increase in output will lead to a greater increment of labour and a smaller increment of capital. To achieve full employment simultaneously for all the factors of production, it is necessary that we should increase production by using those techniques which increase employment of all the available factors in the pro-

portion in which they are unemployed. It is highly doubtful if we could ever do this. We may say that with the given techniques, employment increases unevenly for different factors—so that it will be found that in some lines full employment is achieved earlier than in others. Even if we like to adopt those techniques which would ensure simultaneous achievement of full employment of all the factors, still normally it is not possible to do so as that would mean using those techniques which may not be feasible or known to us, or at any rate which may not be useable in the limited time period available. At the same time the effective supply of factors is always changing. Even with given total physical quantities it is found that these factors will vary in their supplies according to the rates of payments, the changes in social and political values and so on. Apart from these difficulties the measurement of factors is impossible even though we know the relevant things about them. How are we to say that the supply of labour is so much when the total population is so much.

Let us now switch over to other difficulties in the maintenance of full employment. Till now we have been analysing the difficulties in judging as to what we want to achieve. Now having decided the nature of full employment that we want to achieve it becomes a problem how to maintain it. Firstly, we have to decide whether we would like to achieve full employment of labour or of capital if a choice is forced upon us. Let us say that we have chosen to maintain full employment of labour. In that case Kaldor will say that in due course of time dynamic changes in the economy will lead to an imbalance between the labour and capital supply in the country. Capital is a man-made thing while labour is both the creation of nature and of man. Because of this two types of difficulties arise.

The first is the problem of specificity. Every labourer is basically suited to do certain jobs better than others and some cannot be done by him at all. If we want to change the employment of a labourer from one occupation to another, we have to train him. It will take time and it may not be possible to train some labourers for the new jobs even then. Labour supply changes quite slowly while capital supply changes faster. In this situation, naturally, it is not easy to tackle the imbalances between the supplies of labour and capital. The problem of specificity is equally applicable to capital goods. There certain machines produced to do certain specific jobs may become outdated; or there may be a need to change their

employment, but it will not be possible to do so. Machines once manufactured can do only those jobs for which they had been designed earlier. Thus it is clear that this problem of specificity will be haunting us throughout our efforts to maintain full employment.

The second difficulty arises in the form of what is called complementarity. Given the technique of production, the use of some factors necessitates the corresponding use of other factors to a given extent. In the case of labour intensive methods, for example, production cannot be increased unless with the extra employment of capital, we also employ more of labour to the specified greater extent. On the other hand, if we are to use capital intensive methods, then surely we cannot achieve full employment of labour unless we are to augment the supply of capital as well. Thus in India, we find that for various reasons we have to use capital intensive techniques in the development of our capital goods sector as also in some consumer goods. But we have an abundance of unskilled labour coupled with a shortage of skilled labour. It is for this reason that we find in India a shortage of capital (over full employment), unemployment of unskilled labour, and shortage of certain skilled types of labour.

These types of basic difficulties remain with us whether we have an underdeveloped country, or a developed one, because every economy is a dynamic one and there are natural rigidities and time lags.

POINTS TO REMEMBER

- 1 *Keynesian theory was subject of great controversy throughout the early period of the popularity of the General Theory*
- 2 *In due course of time, the controversy regarding the way to achieve full employment was settled but the question of maintaining it remained*
- 3 *Firstly we find that it is a problem to define full employment as such*
- 4 *The total quantity of factors of production goes on changing in every economy*
- 5 *Even the composition of factors would be changing*
- 6 *We have to decide what type of full employment we are to achieve.*
- 7 *How to find out the total quantity of factors ?*

8. *It may not be possible to achieve full employment because of the techniques that are needed.*
9. *There is the question of specificity of factors of production.*
10. *There is the question of complementarity of factors.*

SELECT READINGS

1. Keynes : *General Theory*.
2. Harris : *New Economics*.

38

Q. Comment on the view that Keynesian economics is concerned only with situations of depression. (Poona 1966)

Ans. Keynes wrote his *General Theory* in response to the need of the day, namely to find out the basic cause of depression and unemployment and the way to remove this malady from the economy. He writes in the preface of his *General Theory* that his book "evolved into what is primarily a study of the forces which determine changes in the scale of output and employment as a whole". His main concern was with the forces that were pestering the developed economies of his time in the form of unemployment, depression and falling prices. He wanted to find out the reason why these economies which were capable of producing fantastic amount of national income failed to work at capacity. On the one hand large scale unemployment of labour was torturing these countries, and on the other hand factories and farms were standing idle. Not that the world or even any such developed economy was rid of poverty. Why was it that amidst real scarcity of goods there was unemployment of factors of production ?

It was for this reason that Keynes basically addressed himself to the task of analysing the ills of such an economy that was fully developed, was capable of producing a lot more than it really was producing, and had not eradicated poverty from its ranks. He did not try to deal with the economies which were suffering from inflation, or over full employment. He left out the underdevelop-

ed countries which for technical reasons and scarcity of capital were not able to produce enough of capital and provide employment to their teeming millions. The scarcity in underdeveloped countries is that of the productive capacity and not of effective demand. There the supply of unskilled labour is in abundance but that of the skilled labour is scarce. There is a dearth of factories, dearth of so many machines and equipments which the underdeveloped countries cannot produce. Keynes was not telling us how to deal with the ills of this society which was facing a real scarcity of productive resources rather than the organisational problems culminating in the wide spread unemployment.

An underdeveloped country has to increase its rate of savings which in the initial stage have to be in the form of money savings. In the developed countries we find that the technique of money savings is likely to lead to deficiency of effective demand. In an underdeveloped country the problem of deficiency of effective demand is there but not in the shape of general deficiency. There the deficiency is for particular sectors—namely the capital goods and services. The demand for ordinary consumption goods is not lacking because of the low consumption standards of the people.

Thus for an underdeveloped country there is the additional problem of what is called the balanced growth. In developed countries just increasing the demand and supply is the only thing that matters. It is not necessary to look into the composition of that demand and the composition of the industrial and agricultural growth that is taking place. In underdeveloped countries it has to be ensured that right kind of demand is created at the right time. There must not be demand for goods and services which cannot be produced or imported. There must be demand for goods and services which can be and are being produced. Keynesian system does not deal with this problem at all. Keynes only restricts himself to the analysis of overall deficiency of effective demand which can be cured by increasing money investment or consumption demand.

Then there are the problems of specificity and complementarity which have to be tackled properly. It may be easy to bring about full employment at any given stage by increasing effective demand in a developed country. But it is a big task to maintain that full

employment. Bringing about full employment only means assuming existing set of productive forces and utilization of the same effectively. But maintaining full employment implies tackling the problems of growth of productive resources in the economy. Even in a developed economy the supply of different factors is not going to conform to the existing pattern. There are bound to be changes in the structure of the resource supply. In a developed economy, there are forces which automatically increase savings, and with or without trade cycles, they would lead to differential rates of growth in various factors of production. It is, for example, most likely that the supply of land will lag behind. The supply of capital in general is also likely to increase much faster than the population growth. In underdeveloped countries the difficulty is still more forceful. Here the State normally tries to ensure that different factors grow at different rates. If population and capital grow at the same rate then how will the country attain higher per capita income? How will it be able to adopt advanced and more capital-intensive techniques of production and thus increase labour efficiency? Furthermore even to increase production in agriculture use of more capital per acre is essential. The underdeveloped countries have to augment the supply of capital to drag themselves out of the vicious circle of poverty. Thus we may say that while in developed countries the problem of non-proportionate growth of factors is thrust upon the economy by its very dynamic nature; in underdeveloped countries special efforts are made to attain these imbalances.

What then are these problems of specificity and complementarity that are cropping up in this discussion? We find that different factors are designed to do certain jobs better than others. In certain cases, some factors are meant to do given jobs only, especially so in the case of particular machines. This type of specificity is a great hurdle in the accomplishment of full employment. Those factors and units which have been specifically designed to perform certain tasks find it impossible or uneconomic to engage themselves in other jobs. To provide full employment in the real sense of employment with productivity we will have to find employment of particular types and not employment of any kind. But there is no guarantee that we can fulfill this requirement by increasing only the general purchasing power. Keynes gave us the remedy

of pumping in only the purchasing power irrespective of its point of impact or distribution over various sectors of the economy. But surely as we have seen above, such an approach cannot ensure full employment throughout the economy. Coming to the complementarity aspect, we find that due to technical reasons, we have to use various factors of production in certain proportions. The range of these proportions is sometimes rigidly fixed. In any case, when different factors are growing in different proportions, it is not possible to adopt fully those techniques of production which would ensure complete employment of all the factors simultaneously. Existing techniques are hard to change and the changes involve considerable loss of resources and existing productive capacity. In a developing economy, the problem is still more serious since there the very effort is to change the proportions in which the factors of production are available. The difficulty there is that on the one hand we want to increase employment of labour which implies the choice of labour intensive techniques and on the other hand we want an increase in the supply of capital and improvement in labour productivity which implies rendering labour unemployed. Furthermore, land remains scarce in underdeveloped countries as well. The supply of land cannot be increased and the changes in techniques of production become inevitable due to the fixity of its supply.

Keynes also does not deal with the position that an economy might be facing after full employment. He was of the view that there will always be a tendency in the economy to revert back to under full employment. Full employment is not a stable situation in Keynes. Under full employment is. He only deals with the case of the working of the multiplier process once the full employment has been reached. Therein he points out that since by definition after full employment production cannot increase, therefore, multiplier process starts working in the form of price rise rather than real income multiplier. But he did not deal with the cumulative effects of this price rise. He was actually trying to convince the critics of his policy of injecting purchasing power that there was no danger of inflation at all. His main emphasis was that there are forces in the economy which always pull it backwards and to the deflationary depths. Even if there is temporary attainment of full employment, the State will have to constantly exert itself to retain that position. Keynes ignored the dangers of inflation and the evils which it generated.

Thus we see that Keynes confined himself only to the situation of depression.

POINTS TO REMEMBER

1. Keynes started with the aim of analysing the causes of unemployment and the remedies for it.
2. While in an underdeveloped country the problem of scarcity is real in the sense of incapacity to produce, in case of developed countries the problem is of economic organisation.
3. In underdeveloped countries savings are prescribed as one of the remedies ; not so in developed countries. In underdeveloped countries the deficiency of demand is partial, in developed countries it is general.
4. In underdeveloped countries there is the problem of balanced growth.
5. Keynes ignored all these problems of growth.
6. He even ignored the problems of specificity and complementarity which are prevalent in all the economies, though more in the underdeveloped ones.
7. Keynes also ignored the problems of price rise and inflation. He did not develop the cumulative effects of the working of the price multiplier. He was at pains to emphasise that there was no danger of inflation at any time. The real danger was that of depression only.

SELECT READINGS

1. Keynes . *General Theory*.
2. Hansen . *Guide to Keynes*.
3. Klein : *Keynesian Revolution*.
4. Harris : *New Economics*.
5. Kurihara . *Introduction to Keynesian Dynamics*

SOME RECENTLY SET QUESTIONS

39

Q Examine critically Schumpeter's Theory of trade cycle as a by product of economic progress. What are the implications of this theory for economic policy?

(IES 1969—Eco D)

Ans Joseph A. Schumpeter's *Theory of Economic Development* in the Harvard Economic Studies has a chapter on the 'Business Cycle'. It is the last chapter in the book and deals with the same threads of thought which run through the entire body of the book. The main theme of the book is development of Modern Capitalist Economies. The origin and growth of Modern Economies is explained by Prof. Schumpeter on the basis of the crucial role of enterprise and innovations and subsidiary role of all other factors in the order. The fundamentals of capitalistic economic development have been examined in detail to discover what precisely is the crucial factor which is by far the most important. If that single factor were to be absent the process of growth would have never come into existence and there would never have occurred a break-away from the primitive state of stagnation which preceded the Industrial Revolution. What sparked off the Revolution and how it was sustained over time is the main subject of analysis. Prof. Schumpeter's main hypothesis in this context relates to the role of the entrepreneurs who are the leaders in the universe of business. It is their behaviour which is of the greatest importance in analysing the nature of development of capitalist economies. The business

cycle theory comes as a by-product of the principal theory that deals with the process of economic development. Prof. Schumpeter's analysis is a secular analysis since the span of time covered by the theory is not well defined like the Keynesian *General Theory* which deals mainly with short-term problems arising out of the downward turn of the Business Cycle. Growth is a long drawn out process. That is the reason why business cycle theories differ from the theories of growth since their attention is limited to short-term concrete problems. The theory of economic development which is the current craze everywhere is never taken to be a by-product of business cycle theories. Prof. Schumpeter takes the latter to be a by-product of the former.

It is essential, therefore, to find out the main strands of thought in Prof. Schumpeter's theory of economic development. The theory of Business Cycle comes up in the process of development. The process of growth begins when a group of people take the initiative to introduce certain untraditional innovations into the productive system. In the free enterprise system the initiative comes from a class of people who are described as entrepreneurs. These are business leaders who are motivated to introduce innovations because of their intense passion for the acquisition and accumulation of wealth. The capitalistic order permits the acquisition of a fortune in accordance with the normal rules of the game. The rules allow a person or a group of persons to come to the market to produce and sell any commodity which the consumers desire or could be persuaded to buy. Exchange is the essence of the market. Every person is free to produce and to sell anything demanded by the consumers if such things are not explicitly prohibited to be produced or consumed by the state in the general interest of the society. Everyone has a chance of acquiring wealth on one's own initiative and effort in production. Lust for wealth prompts in particular a class of people who specialise in pouring out their mind on plans of making a fortune by organising the production and sale of various goods and services. They conceive of a plan of production, bring together the necessary factors of production, produce the things which are expected to enjoy the favour of the consumers. There is an organised endeavour to coax, cajole and woo the consumers or to suggest and hypnotise them so that they may be persuaded to surrender their income in exchange for the products which the entrepreneurs bring to the market. The entrepreneurs contemplate constantly on the ways and means of luring away the money from the

pockets of the consumers and in their attempt to acquire a fortune they have to do something or the other which the other competing fellows in the market are not already doing, i.e., they have to introduce innovations. What are the things that they do? How do they try to please the customers?

The entrepreneurs endeavour to win over the favour of the customers by introducing a new product or by adopting a new technique of producing products which are already there in the market at a lower cost so as to reduce the price and attract the customers or they discover a new source of supply of the raw materials and other factors of production or they think of doing business in a new way or they develop a new market. Several things can be combined at the same time. The net result of the introduction of innovations is large-scale investment in the production of the various goods and services. The entrepreneurs have to somehow mobilise the necessary investible resources either from the bankers or from the capital market or from private money-lenders or from other sources and invest the funds in producing commodities for which they expect a good demand to prevail when the goods reach the market. What needs to be noted is the role of the entrepreneurs in determining the total investment in a capitalist economy during a given period of time? What does investment do? It does two major things besides producing other consequences. It adds to the existing production capacity and creates new flows of income in favour of the newly employed or better employed factors of production. When the entrepreneurs go on introducing product after product in the market and go on introducing all sorts of innovations over several decades, the entire economic scene undergoes a radical transformation which goes by the name of economic development. Development itself is defined as increase in the real per capita income over a period of time and that is precisely the result of large scale investment due to the innovational endeavour of the entrepreneurs. This is the essence of Schumpeter's theory of economic development. Now, how is his business cycle theory a by-product of his theory of development?

What does the business cycle theory deal with? It deals with the periodical occurrence of booms and depressions in modern capitalist economies. A boom is characterised by a big spurt of economic activity. Optimism rules supreme in the market. The entrepreneurs hope to reap a rich reward for their investment and effort. Investment goes up. Surplus labour is reabsorbed into

additional employment into various lines of production. The total income of the community goes up. Their expenditure increases. The demand for commodities is bright and brisk. Production looks up. Investment multiplies. Income increases. Demand rises in a spiral. Prices increase. The entire market hums with the song—"All is well with the World". The boom, however, clouds behind a bright facade a dark and dismal depression which follows in a short period of time. There is a shrinkage of demand. Commodities remain unsold. Prices decline. The sellers run into a loss. The producers have to cut down their production. Some of the workers lose their jobs and hence, lose their income as well. Demand declines further and pushes the prices further down. Pessimism rules in the market. There is a fall in employment, output and income. Demand falls further and thus the entire economic scene is too dark and gloomy. There is misery everywhere and the world seems to be 'out of joint'. Booms and depressions follow each other in periodical cycle. Several explanations have been given regarding the causation of the ups and downs such as the over-production theory, the under-consumption theory, the theory of seasons in nature as in the case of agriculture and there exist certain other theories as well which analyse the psychology of the business community. The Schumpeterian Theory of business cycle concentrates on only one aspect of the phenomenon of business cycles to explain the occurrence of the ups and downs. It concentrates on the swarm-like appearance of the entrepreneurs during a boom and the doom of the entrepreneurs when there is a depression. The basic difference between a boom and a depression is the difference with regard to enterprise. When the entrepreneurs appear in the market in a big swarm, a boom is inevitable. When some entrepreneurs decide to invest and carry out their investment programme, they create a fresh stream of income. The stimulus of income is felt in the market in the form of growth of demand for various goods and services. Prices go up. There is a further stimulus to invest. The optimism in the market induces a large number of entrepreneurs to push into the market with their own innovations. There is thus a mushroom growth of economic activity, the sum total of which constitutes the essence of what is called a boom. When all the investments come to maturity, production exceeds demand, commodities remain unsold and the downswing of the cycle appears with disastrous consequences. Thus the Schumpeterian Theory of business cycle appears to be a by-product of the theory of growth which concentrates on the behaviour of the

entrepreneurs For purposes of policy, the implications are the need to control the possible occurrence of depressions and the need to avoid inflationary increase in prices Growth by swings appears normal if there is no governmental intervention

POINTS TO REMEMBER

- 1 *Schumpeter's theory of business cycle is a by-product of his theory of capitalist economic development It is the last topic in his theory of development*
- 2 *Schumpeter's theory of development deals primarily with the spurt in business enterprise in terms of the role of the entrepreneurs and innovations*
- 3 *Development is mainly a matter of introduction of innovations on a sufficiently large scale*
- 4 *Modern capitalist economies are characterised by periodical occurrence of booms and depressions*
- 5 *The swarm-like appearance of entrepreneurs in the market accounts for a boom*
- 6 *When several investments come to maturity, production outpaces demand resulting in a depression*
- 7 *Growth proceeds by swings unless the process is controlled by an agency like the State*

40

Q Show how far Keynesian theory of employment corrected the deficiencies of the classical theory and discuss also the further improvements if any made by post-Keynesian economists
(IES 1969—Eco-I)

Ans Who are the classical economists? What is their theory of employment? What are the deficiencies in the classical theory? What things are qualified to be called deficiencies? How does the *General Theory* of Keynes remove these deficiencies? These are some of the basic issues Besides, it is also necessary to trace the growth of the theory of employment in the post-Keynesian era

Prior to the appearance of the *General Theory*, the classical school was represented mainly by Ricardo, Mill and Malthus. Lord Keynes thought it proper to enlarge the classical school to cover Marshall and Pigion as well, in the same category. The classical economists are so called because of their firm faith in the traditional free enterprise system of production and distribution, and the inherent capacity of the order to adjust itself to the changing economic situation over time. The basic tenet of the classical school is the need for leaving the market almost totally free from governmental intervention. All of them have a firm conviction that, that government is the best which governs the least. The market does everything. It is automatic, leave it alone. There is nothing to worry about so long as the forces of competition are allowed to operate uninterrupted.

The classical theory of employment accords with the faith of the doyens of the school in the virtues of a free system which works on a competitive basis. The classicists start off with the assumption that every free system has a strong tendency to work at the level of full employment during normal times. Lapses from the level of full employment are far and few between and even if there exist sometimes some unemployed workers, their number is rather small. It is not a serious problem. Every free, competitive system normally provides employment to every worker who is willing to work at the prevailing rate of wages of the people of his own class. Unemployment in the sense of enforced idleness, in spite of the ability and the willingness to work at the market rates, is a rare phenomenon. It is unemployment of the frictional type. Some trades are flourishing and some are declining. In the latter some workers may be forced to remain jobless for some time till they migrate to the flourishing industries and get new jobs. They have to learn some new skills. It takes a little time. They have to remain unemployed in the process of transition from one occupation to another. It is a brief period of waiting between two jobs. If some of the workers remain unemployed over a long period of time, it is due to their unwillingness to accept the market rate of wages. The demand for high wages may result in unemployment due to the increase in the cost of production, especially when wages are responsible for a major portion of cost. If the wage rates be reduced a period of unemployment to a sufficiently low scale, the cost of production would decline and induce the entrepreneurs to employ more of workers. Wage rates, however,

are much too sticky. They do not come down once they go up particularly when there exist strong labour unions. Unemployment is thus the outcome of high wages. Economists like Pigou put the blame even for temporary unemployment on high wages. The earlier economists put the blame on the limited supply of natural resources and the growing pressure of population both of which contribute to unemployment and exert a downward pressure on wages. The classical school could never think of a prolonged period of unemployment of a large number of workers. It was really unknown to them since the historical economic experience of Britain during the earlier times never gave rise to anything like a long period of unemployment of large numbers. They took it for granted that every worker gets a job. The Industrial Revolution, growing expansion of exports and ever increasing demand for labour helped the British economy to work at the level of full employment, leaving far behind into oblivion the era of the 'Swinish multitude' in the early stages of the Revolution. The smug complacency of the classical school was the outcome of a long spell of comfort for Britain as a whole.

How far is the classical theory of employment satisfactory? Is it of any use in explaining the phenomenon of unemployment of a considerable number of factory workers or farm workers during a period of depression as in the thirties? What are the assumptions of the theory and to what extent are they valid? Obviously, the classical assumption of full employment does not fit into the facts. One cannot turn a blind eye to the stark fact of large scale unemployment during a period of depression. The problem is stubborn and persistent. It is not a purely temporary phenomenon of the frictional type. It is a chronic problem in every capitalist society. Unemployment becomes a normal feature at a mature stage of growth when there is an abundance of production and a comparative lack of demand for goods and services. This is a fact which could be verified with reference to the economic history of any advanced economy. It is, however, not to be confused with the prevalence of large scale unemployment in the over populated backward countries in which the explanation is more of the Ricardo Malthus type limitation of resources and growing pressure of population. The basic deficiency of the classical theory lies, therefore, in the assumption that every capitalist economy has a strong sort of tendency to work at the level of full employment. It is not true. It is contrary to the facts. Unemployment is a problem to be reckoned with. There exists almost in every capitalist country a chronic deficiency of the demand

for labour. The Classical School has never been able to appreciate the problem.

Unemployment may be the outcome of high wages in a few cases but that is not the only explanation of unemployment, nor is it the most acceptable. It is based on a partial analysis of the behaviour of individual firms which feel irked by high wages. If the wages fall in a particular occupation and the rest of the workers continue to earn as much as before, a fall in wages may create a demand for more of workers in that particular occupation. Should there be, however, a general fall in the workers' earnings in all the industries at the same time, the classical argument just falls flat. Far from creating a demand for labour, it would create further unemployment. When there is a general fall in the earnings of the workers, the demand for wage goods declines. The workers are the majority of the consumers in the industrialised economies and if their demand falls due to a fall in their income, the demand for labour to produce the commodities is bound to fall. The classical theory takes a partial or a micro-view of things and hence, fails to appreciate the impact of a general cut in the level of wages. Ascribing unemployment to high wages is a glaring deficiency of the classical theory of unemployment. In fact, a general improvement in the level of earning of the workers may turn out to be conducive to the creation of employment opportunities. The demand for commodities is likely to go up since most of the workers have a high propensity to consume. The demand for labour to produce the commodities in demand would result. Partial analysis may lead to wrong conclusions. The inability to appreciate the inter-dependence of economic variables is also a deficiency of the classical school of thought.

The third deficiency of the classical school lies in the assumption that the free systems work on an automatic basis in accordance with the needs of the times. There is no such automaticity in the system. Automaticity comes to an end with the rise of monopoly and monopolistic competition in place of the perfectly competitive system in which the price mechanism works smoothly to correct the imbalances. There is, in point of fact, no such thing as a perfect market system of the sort imagined by the classical thinkers. Non-intervention on the part of the government when unemployment stares in the face of thousands of able-bodied persons, would be nothing sort of a serious crime. No country can ignore a cancerous

problem like unemployment The public authorities have to intervene to provide a solution

The Keynesian school of thought removes the deficiencies of the classical school by exploding the assumptions of the classical thinkers The *General Theory* starts off with the fact that the demand for labour is derived from the demand for the products which the workers produce If the demand for products goes down due to some reason or the other the demand for labour also is likely to decline Therefore, the Keynesian theory of unemployment takes into account the aggregate effective demand for goods and services Without a proper analysis of the aggregate demand for commodities, it is hardly possible to formulate a theory of employment and unemployment What determines the total effective demand for goods and services is the basic issue which was ignored by the earlier economists but was taken into account by Keynes The *General Theory* is a well rounded theory which takes into account income output price, the marginal propensity to consume the marginal propensity to save and the marginal propensity to invest Investment is a basic determinant of employment The behaviour of investment as determined by the marginal efficiency of capital and the rate of interest is a part and parcel of the Keynesian theory of employment It is a comprehensive theory It is primarily a monetary theory In the post Keynesian era the emphasis in the analysis has shifted to structural and technical factors along with the analysis of monetary causes There is also a lot of thinking being done on the applicability of the *General Theory* to the conditions in the backward countries in which unemployment is not solely due to defects of demand

POINTS TO REMEMBER

1 The classical school is represented mainly by Ricardo, Mill and Malthus Keynes includes Marshall and Pigou as well in the same school

2 The classical theory does not have any particular theory of unemployment since they do not recognise the existence of the problem itself They take it for granted that every person willing to work gets a job

3 Unemployment, according to the classical school is the outcome of high wages during exceptional times It is a purely temporary phenomenon of the frictional type

4. *In accordance with the classical school, a competitive market system automatically works at the level of full employment.*
5. *The General Theory of Keynes explodes the assumptions of the classical school and paints out the fallacies in their analysis.*
6. *Unemployment is a chronic phenomenon in every capitalist economy and calls for a serious attention. It is directly the outcome of a deficiency in the demand for goods and services.*
7. *The Government of a country cannot afford to hold its hands off from the problem.*

SOME IMPORTANT QUESTIONS WITH SYNOPSES

1

Q What do you mean by 'full employment'? Discuss how this full employment can be secured (*Gauhati 1960*)

What do you understand by 'full employment'? How far is it possible to retain it through monetary measures? (*Allahabad 1959*)

What is full employment? How far is it a meaningful concept in regard to an underdeveloped economy? (*Bombay 1957*)

- 1 The concept of 'full employment' is often misused and misunderstood. Full employment, to be sure, does not refer to a situation where all labourers are fully employed and there is absolutely no unemployed labour. In fact, in every economy, and at any time, there is bound to be some amount of unemployment caused by "frictions". These frictions may be technological changes, changes in tastes and habits of the consumers, scarcity of equipment and raw materials in particular lines of production etc. The unemployment caused by these factors is described as "frictional unemployment". The frictional unemployment is not a serious problem as, by their very nature, "frictions" are temporary and, given sufficient time, the frictional unemployment would disappear. Strictly speaking, frictional unemployment is not regarded as unemployment.

ment at all. Thus, full employment is compatible with a certain amount of frictional unemployment.

2. By the term 'full employment' Keynes implies the absence of "involuntary unemployment". "Men are involuntarily unemployed if, in the event of a small rise in price of wage-goods relatively to the money-wage, both the aggregate supply of labour willing to work for current money wage and the aggregate demand for it at that wage would be greater than the existing volume of employment." (Keynes, *General Theory*, p. 15.) In other words, in a state of involuntary unemployment, labourers being under a "money illusion" are prepared to accept a cut in real wages although they may resist a cut in money wages so that aggregate employment would increase. A situation of full employment, on the other hand, refers to one where every fall in real wages leads to an exactly proportionate increase in money wages so that employment does not increase. As Keynes has put it, full employment is a situation "in which aggregate employment is inelastic in response to an increase in the effective demand for its output."
3. The Keynesian concept of industry is inappropriate in the context of the underdeveloped economy. In the Keynesian sense the underdeveloped economy is in full employment equilibrium. For the phenomenon of involuntary unemployment which is characteristic of the advanced industrial sector is of little significance in a predominantly agrarian underdeveloped economy. The type of unemployment which is peculiar to the underdeveloped economy is the "disguised unemployment" widespread in the agricultural sector. Disguised unemployment refers to the surplus labour whose marginal productivity is nil so that by utilising this for some other purpose the total output can be increased. In the context of the underdeveloped economy, full employment must be defined as a state where disguised unemployment is absent. In this sense, full employment means a situation where any further employment of labour would bring down the marginal productivity of labour.

- 4 Employment can be increased by the use of monetary policy to some extent. A cheap money policy increases the profitability of investment. If investment increases, output and employment would also increase. But Keynes and Hansen are doubtful if full employment can be attained through monetary measures alone. The monetary authority can influence the rate of interest only, but it cannot influence the marginal efficiency of capital which is a psychological factor and is a more important determinant of investment.
- 5 Keynes and his followers like Hansen, Kurihara and Lerner have suggested a dynamic fiscal policy for the attainment of full employment. In the first place, the tax rates should be reduced for the poorer sections and increased for the richer sections. A more equitable distribution of income would increase consumption and thereby promote investment and employment. Secondly, the public investment should be stepped up. The public investment may be financed either through the creation of a budget deficit or by printing new money.

2

Q Examine the possibility of the maintenance of full employment in a free enterprise society by monetary policy alone. (Delhi 1960)

Critically examine whether a sound monetary policy alone can bring about economic stabilization. (Rajasthan 1959)

- 1 In a mature industrial economy which has already attained a high level of income and full employment the fundamental economic problem is to maintain stability. Is it possible to maintain the stability of income and employment by monetary policy alone? On the basis of the theory underlying monetary policy and from the point of view of the practical experience of the capitalist economies with

the instruments of monetary control during the last three or four decades. the answer would appear to be in the negative. Unless monetary policy is supplemented by fiscal policy, it would be too weak to ensure stability in a free enterprise economy.

2. Monetary policy seeks to influence the levels of income and employment via changes in the aggregate consumption expenditure and aggregate investment expenditure through changes in volume of credit in the economy. The volume of credit is only one of the many factors influencing the level of economic activity, not the sole factor determining it. The credit has only an indirect influence upon the levels of income and employment. For instance, in times of boom or inflation, the central bank may raise the bank rate with a view to bring down the price level. But if the businessmen are optimistic about the future prospects, a mere rise in the bank rate would be too weak to put a check upon the rising level of investment. Similarly, in times of depression or deflation when the businessmen become pessimistic about the future prospects, they cannot be induced to raise the level of investment by a mere lowering of the bank rate. Likewise, the success of the policy of open market operations depends upon the desired reaction of the public and the banking system to the central bank's policy. In times of boom or inflation the central bank is supposed to reduce the volume of credit by selling out securities in the open market. The policy would bear fruit only if the commercial banks and the public are prepared to purchase securities and part with the liquid cash. Similarly, in times of depression or deflation the open market policy would be successful only if the banks and the public are willing to sell out securities to the central bank. Thus, from the theoretical point of view the weapons of monetary policy have only an indirect influence on the levels of income and employment.
3. The theoretical doubts about the efficiency of monetary policy are confirmed by the practical experience of the Thirties. During the depression of the Thirties, the central banks carried the process of credit expansion to fantastic

extremes but without any noticeable impact on the level of economic activity. This made it abundantly clear that economic stability cannot be maintained by mere monetary manipulation.

- 4 The tools of fiscal policy are much more direct in their effect upon the levels of income and employment. Fiscal policy does not have to depend upon the psychological reaction of the banking system or the public for its successful operation. In times of deflation or depression the method of deficit spending or public investment directly raises the level of aggregate investment in the system which has a multiplier effect upon income and employment. Similarly, in times of boom, the creation of a budget surplus directly reduces the level of aggregate investment. The volume of consumption expenditure can also more easily be regulated by fiscal policy. In times of inflation, the aggregate spending can be directly reduced by raising the tax rates and the reverse can be done to increase the aggregate spending in times of deflation.
- 5 In most of the free enterprise economies, monetary policy has been relegated to the background. It is used as an instrument of stabilization in conjunction with fiscal policy.

3

Q "The possibility of under-employment equilibrium is largely a matter of assumptions regarding shapes of the strategic functions." Elucidate. *(Venkateswara 1960)*

To what extent is the Keynesian theory of under-employment equilibrium consistent with the classical theory of full employment equilibrium? *(Allahabad 1960)*

"Inherent in the free functioning of a capitalist system are forces leading it to a permanent low level of under-employment equilibrium." Discuss. *(Karnatak 1959)*

Why can a classical economist not admit that equilibrium can exist without full employment? How does Keynes prove the theory of under-employment equilibrium?

(Mysore 1956)

1. According to the classical economists, unemployment is incompatible with competitive equilibrium. This assertion is based upon Say's Law of Markets which states that every supply creates its own demand and therefore a general over-production or a chronic mass unemployment is impossible. Under conditions of free competition, if at any time the supply of a commodity is greater than its demand, its price will automatically fall until supply is equal to demand. Labour is also like a commodity. If the supply of labour is at any time greater than its demand, there would be unemployment. But under perfect competition, the unemployed labourers will compete for jobs and their competition would lower the wage-rate to the level at which supply of labour would again be equal to demand and unemployment would be wiped out. In the same way, if the savings are at any time greater than investment, the market rate of interest would fall until monetary equilibrium is restored.
2. According to Keynes the classical theory is an over-simplification of reality. Keynes contends that full employment, far from being a normal feature of the capitalist economy, is an exceptional case. On account of certain technical and institutional factors inherent in the capitalist structure of society, chronic under-employment equilibrium is the normal situation. A state of full employment is merely a deviation from the under-employment equilibrium.
3. Keynes contends that unemployment is not due to wage rigidity as the classical economists assert but due to the deficiency of effective demand and hence, the situation of unemployment is not corrected by a mere fall in the wage-rate. Similarly, the saving and investment functions are not perfectly responsive to changes in the rate of interest as the classical economists assume.
4. According to Keynes, chronic under-employment equilibrium arises on account of the peculiar shapes of the investment function, consumption function and the liquidity

function. The liquidity function is highly interest-elastic—the demand for money for speculative motive is highly responsive to changes in the rate of interest. At a low rate of interest, the demand for money becomes perfectly elastic. This means that the rate of interest does not fall and cannot be reduced below a certain minimum. The classical economists, on the other hand, assumed that demand for money is only income elastic and not interest-elastic.

Secondly, the classical economists assumed an interest-elastic saving or consumption function. But Keynes assumes an income-elastic consumption function. He contends that the marginal propensity to consume is less than unity and as the level of aggregate national income rises, the marginal propensity to save increases and the aggregate savings tend to exceed aggregate investment.

According to the classical economists, the level of investment depends solely upon the rate of interest. But Keynes introduces an additional factor in his investment function namely, the marginal efficiency of capital which he regards as a more important determinant of investment than the rate of interest. The marginal efficiency of capital is a highly psychological factor so that a mere rise or fall in the rate of interest does not always affect the investment.

- 5 As the level of aggregate national income rises in a free enterprise economy, the consumption falls off and the propensity to save is strengthened. This adversely affects the level of investment and the economy moves downward from the full employment equilibrium and settles down in the under employment equilibrium.

4

Q Do you agree with the view that Keynesian multiplier does not operate in an underdeveloped economy?

(Punjab 1960)

1. The Keynesian concept of "investment multiplier" envisages a functional relationship between investment and income. When investment increases, the resulting income is a multiple of the original increment of investment depending upon the marginal propensity to consume.
2. At first sight, it would appear that as the marginal propensity to consume is generally higher in the underdeveloped economy than in the developed one, the multiplier would operate more vigorously in the former. This, however, is true only in respect of *money* income. In *real* terms, the multiplier effect would be insignificant and we agree with the view that the Keynesian multiplier theory does not apply to the predominantly agricultural underdeveloped country.
3. The operation of the multiplier depends upon the existence of involuntary unemployment which implies, by definition, the scope for a cut in real wages. This assumption does not hold good in the underdeveloped country. Although involuntary unemployment is not non-existent, it is not of any great importance. The type of unemployment characteristic of the underdeveloped economy is the "disguised" unemployment. In the underdeveloped economy, the level of real wages is about the minimum necessary for physical existence. The skilled labour is in short supply so that all labour cannot be readily used for increasing output.
4. The operation of the multiplier also presupposes the existence of excess capacity in the capital equipment. But in an underdeveloped country excess capacity in capital equipments is limited, if not non-existent, so that when investment increases, prices, instead of output, tend to rise.
5. Agriculture, by its very nature is a long-term industry. As it is dependent upon the natural factors like climate, rainfall etc., quick increase in output is not possible. While in a developed economy (characterised as it is by the existence of involuntary unemployment, excess capacity in the capital equipment and the elastic nature of industrial production) an increase in investment leads to an increase in real income without delay. In an underdeveloped economy on the other hand, on account of the inelasticity

of the supply of output, an increase in money investment merely spends itself in generating inflationary pressure

5

Q. Explain the concepts of the multiplier and the income velocity of money and carefully bring out the distinctions between the two (Poona 1960)

Critically examine the theory of multiplier as an instrument of dynamic analysis of economic changes (Gujarat 1960)

- 1 The concept of *income velocity of money* was introduced by Keynes in his *Tract on Monetary Reform*. The income velocity of money is defined as the ratio between the national income and the aggregate money supply. If Y be the real national income and M the aggregate money supply, the income velocity of money $k = Y/M$. The income velocity measures the average number of times a unit of money is received as income by the final income recipients during the period under consideration. The income velocity of money is of greater relevance than the Fisherine velocity of circulation of money in the determination of price-level. For, the effect of a change in the quantity of money upon the price level does not depend merely on the quantity of money but on the supply of money relatively to the aggregate real income. If an increase in the quantity of money is accompanied by a corresponding increase in the real income, the price level will not be affected substantially.
- 2 The concept of *multiplier* was originally introduced by Prof Kahn. He referred to employment multiplier which implies that the increase in total employment as a result of an increment of investment is a multiple of the primary increase in employment. Keynes' income multiplier implies that the increase in aggregate income is a multiple of the original increment of investment. If Δy be the in-

crease in aggregate income, ΔI the increment of investment, then multiplier.

$$k = \frac{\Delta y}{\Delta I}$$

The value of k depends upon marginal propensity to consume. Higher the marginal propensity to consume, greater would be the multiplier effect of a given increment of investment.

The income velocity of money shows the relationship between the total real income and the total money supply, while the income multipliers show the relationship between the increment of investment and the increment of income.

3. The Keynesian multiplier is a purely static concept in which all changes are assumed to take place simultaneously and instantaneously. With the introduction of time-lags by Prof. J.R. Hicks, the concept has been recently dynamised and thus made more useful. It is assumed that when investment increases, income does not increase immediately but after a time-lag, the length of which, depends upon various technical and institutional rigidities and bottle-necks. Consumption is determined not by the income of the current period as in the Keynesian concept but by the income of the preceding period. This reformulated dynamic concept of the multiplier has become a highly useful and popular instrument in the analysis of the cyclical fluctuations. Prof Samuelson has shown that a series of cyclical fluctuations can be obtained by combining the lagged multiplier and acceleration effects. Similarly, Prof. Hicks has incorporated the dynamic concept of multiplier in his model of trade cycle

6

Q. What are the analytical requirements of a purely monetary theory of the business cycle? Evaluate Hawtrey's

version of the trade cycle theory in the light of these requirements (Poona 1959)

- 1 If one carefully examines the life-process of the phenomenon of trade cycle, one will discover that the trade cycles have certain distinct and regular characteristic features. In the first place, the boom as well as the depression are cumulative in character but they nevertheless alternate, i.e., the boom gives rise to depression and the depression gives place to boom in course of time. Secondly, the transition from boom to depression is usually sudden but the contrary change at the bottom of the depression from which recovery emerges is very slow and gradual. Thirdly, the cyclical fluctuations usually show a marked regularity in regard to periodicity. The boom and depression occur after definite intervals of time.
- 2 The fundamental analytical requirement of the purely monetary theory of trade cycle is that it must be capable of explaining the characteristic features of the phenomenon of trade cycle exclusively in terms of monetary factors and forces without invoking the non-monetary ones. In other words, the theory must explain the cumulative character of the cyclical fluctuations, the slowness of recovery and the periodicity of the trade cycle.
- 3 A purely monetary theory of trade cycle has been adduced by Prof. R. G. Hawtrey. He contends that non-monetary factors like crop failures or bumper crops, wars etc., may cause fluctuations in particular lines of production but they are capable of resulting in general cyclical fluctuations in the levels of income, employment and output.
- 4 According to this theory, the boom is brought about by a fall in the bank rate. The bank rate is the lending rate of the central bank—it is the rate at which the central bank advances loans to the commercial banks. When the bank rate is lowered, the market rate of interest also tends to fall. This, according to Hawtrey, has a pronounced effect upon the short-term borrowing of a group of merchants called "dealers". When the rate of interest falls, the dealers borrow more of credit from the banks and are

induced to hold larger stocks of goods. They place more orders for goods with the producers and the producers experience a buoyancy of demand. They also borrow larger credit from the banks and expand the scale of production in order to meet the increased demand. The resulting increase in income and employment in turn leads to a further increase in demand for goods and thus a vicious circle of inflation is set up. There is another factor which comes into operation and strengthens the cumulative process. As full employment tends to be reached, the prices begin to rise and the dealers hasten to borrow more credit and hold larger stocks of goods. This stimulates further inflationary pressure.

5. The process of expansion, although it is cumulative, cannot continue indefinitely. Hawtrey observes that man-made limitations—the limitations imposed by law and custom—come into operation. The central bank with its anxiety to maintain monetary stability intervenes and puts a halt to the process of credit expansion by raising the bank rate. This has the effect of reducing the borrowing by dealers, of contracting the volume of sales of the producers, who, in turn, reduce the scale of production and thus the levels of income, employment and output fall. This is the downswing of the trade cycle which is no less cumulative than the boom. In this phase, as the prices begin to fall, the consumers postpone their purchases in the hope of lower prices in future thus aggravating the depression.
6. Hawtrey's theory is incapable of explaining the second characteristic feature of the trade cycle, namely the slowness of recovery. The recovery from the bottom of depression is slow and gradual because, as Prof. Pigou has pointed out, when the businessmen become pessimistic they can be persuaded to revise their outlook about the future and to increase the level of investment only slowly and gradually. But this is a non-monetary factor.
7. Regarding the third characteristic feature of a trade cycle namely, periodicity, Hawtrey contends that periodicity is not an integral part of the trade cycle. He observed that periodicity of the trade cycle was due to the International Gold Standard. Under the Gold Standard, the process of

expansion and contraction took almost the same time to work themselves out After the break down of the International Gold Standard, the marked periodicity of cyclical fluctuations has disappeared

The purely monetary theory stands as a discredited explanation of the phenomenon of trade cycle It is felt by the authorities on business cycles like Hansen, Hicks Kalecki and Estey that it completely neglects certain technical and psychological factors which play an equally important role, if not a more important role, than the monetary factors

7

Q Explain carefully what Keynes meant by the statement that the trade cycle is mainly due to the way in which marginal efficiency of capital fluctuates (Nagpur 1959)

- 1 According to Keynes, by far the most significant determinant of the levels of income and employment in capitalist society is the marginal efficiency of capital The marginal efficiency of capital is "the rate of discount which would make the present value of the series of annuities given by the returns expected from the capital asset during its life just equal to its supply price" In plain language, it refers to the expected rate of profit over the life time of the capital asset

Indeed, the levels of income and employment depend upon the three independent functions of the Keynesian system namely, consumption function, liquidity function and investment function The consumption function is relatively stable as the tastes and habits of a population are not subject to frequent fluctuations The rate of interest does fluctuate to a greater extent but its effects are not so significant The investment function is dependent upon two variables, namely, the rate of interest and the marginal efficiency of capital of which the latter is

more important (See Keynes' *General Theory*, Ch. II, Sec. V.)

2. It logically follows that since the propensity to consume and the rate of interest are relatively stable factors, the explanation of the fluctuations in the levels of income, output and employment associated with the phenomenon of trade cycles has to be sought in the state of the marginal efficiency of capital. "The schedule of the marginal efficiency of capital is of fundamental importance because it is mainly through this factor (much more than through the rate of interest) that the expectation of the future influences the present."
3. According to Keynes, the boom is brought about by a rise in the marginal efficiency of capital which may be due to an internal factor like invention or an external factor like the opening up of new channels of foreign trade. The boom is brought to an end by the rising prices as full employment approaches. The rising prices raise the cost of production and the marginal efficiency of capital falls.
4. The depression is brought about by a fall in the marginal efficiency of capital. The depression also cannot continue indefinitely for two reasons. First, in prosperous periods the businessmen pile up heavy stocks of raw materials and during depression the liquidation of these stocks is an important cause of disinvestment. When these stocks are exhausted, disinvestment stops. Secondly, there is the flow of autonomous investment.
5. Keynes also explains the periodicity of the trade cycle. The period of boom is determined by bottlenecks, shortage of labour and capital. The length of the depression depends upon the time necessary for the wearing out and obsolescence of the durable capital equipment.

8

Q. 8. Examine the role of the acceleration principle explaining economic fluctuations.
(Gauhati 1960)

- 1 The acceleration principle is a concept of recent origin which suggests a technical relationship between consumption and investment. The principle of acceleration states that the changes in investment are a function not of the absolute level of consumption but of the rate of growth of consumption so that a slight change in the demand for consumption goods produces a much more violent change in the demand for capital goods. The size of the acceleration effect depends upon the capital output ratio and the durability of the equipment.
- 2 Prof I R Hicks has advanced an explanation of the phenomenon of trade cycle exclusively in terms of that acceleration principle in his recent book *A Contribution to the Theory of Trade Cycle*. Thus, he seeks to establish the fundamental thesis that trade cycle is essentially a non-monetary phenomenon.

The boom is started by an initial spurt of investment, say, due to an invention. The rise of investment above the normal level steps up the acceleration and multiplier effects so that the economy moves upward. But this upward movement cannot continue indefinitely on account of the 'full employment ceiling'. As the economy hits the full employment ceiling the path of output turns downwards and the downswing begins.

- 4 The downward movement also cannot continue indefinitely on account of the "transformation of the acceleration". The acceleration principle does not work in the downswing in the same way as in the upswing. In the upswing, there is no limit to the acceleration effect but in the downswing there is a definite limit to the magnitude of the acceleration effect. The volume of disinvestment cannot exceed the depression. Thus, the downswing has a bottom. The economy creeps along this bottom for some time, depending upon the excess capacity. Once the excess capacity is exhausted, positive acceleration effect becomes operative again and the cycle can be repeated.
- 5 Thus, Hicks provides a satisfactory explanation of the turning points of the trade cycle in terms of the acceleration principle. He also provides an explanation of the

periodicity of the cyclical fluctuations. Since the system has a ceiling and a floor, output changes will oscillate between these two limits and the very existence of these limits ensures some sort of periodicity.

9

Q. Explain what you would consider to be the essential requirements of an adequate business cycle theory. What do you think of the view that every business cycle is a new historical incident?

(Delhi 1958)

"Explanation of the trade cycle will remain controversial because there will always be difference in the relative emphasis placed on the relevant technical and institutional factors." Discuss

(Delhi 1956)

1. A complete and adequate theory of business cycle must be capable of explaining fully the characteristic features of the cyclical fluctuations. In the first place, they must explain why the processes of expansion and contraction are cumulative in character. Secondly, it must account for the alternation in the process; that is why the boom gives place to the depression and the depression is turned into a boom in course of time. Thirdly, the cyclical fluctuations show a marked periodicity which must also be explained by an adequate theory of business cycle.
2. The phenomenon of business cycle is the result of the action and interaction of a number of complex factors of diverse character, technical, monetary, institutional and psychological. The importance of these factors is different in the different countries and in different periods of history. At a stage when the monetary system was not well developed and money did not have any significant influence upon the pattern of economic life, the cyclical fluctuations could be reasonably attributed to non-monetary factors. At a stage when technological development wields a much greater influence upon economic life than other factors,

the cause of the trade cycle can be traced to the technical factors. Therefore, it is true to say that every business cycle is a new historical incident. The economic history of the world also bears testimony to the fact that the character of the trade cycle differs from period to period. The agricultural depressions of the 18th and 19th centuries alleged to have been caused by sun spots were strikingly different from the industrial and trade depressions of the 20th century.

- 3 Explanation of trade cycles will always remain a controversial subject on account of the relative emphasis placed on different factors as the cause of the cyclical fluctuations.

The purely monetary theorists ascribe the trade cycle to the purely monetary factors. In this group may be included writers like Hawtrey, Hayek, Robbins and Ludwig Von Mises. There are others who on the contrary, place varying emphasis on the non-monetary factors like psychological, institutional and technical. Prof. Pigou attempts to ascribe the industrial fluctuations exclusively to the business psychology. The writers like Hohnson, Foster and Catchings hold the institutional factors to be solely responsible for the phenomenon of trade cycle. Prof. Hicks and Kalecki, on the other hand, contend that the fluctuations in the levels of income and employment are due to technical factors which overweigh all other factors in importance in a mature capitalist economy. Thus, as trade cycle is not caused by any one single factor but by a variety of complex factors and forces, the theory of trade cycle will always remain a controversial subject on account of the relative importance attached to different factors by different writers.

APPENDIX

ECONOMICS OF WAR

War and Employment

One of the incidental benefits of a war is the enormous increase in the opportunities for employment in diverse vocations. Recruitment to the army, the navy and the air force and the employment of technicians and unskilled workers alike for the production of arms and ammunition and other necessities of the fighting men and their assistants right from the front to the farms and factories, roads, railways and other means of communication etc. which try to equip the military personnel with the means of warfare etc. create employment opportunities to almost every class of workers. Unemployment is reduced to the minimum during a period of war. In fact, in some of the countries in which the pre-war volume of unemployment is not of much significance there would be over full employment as a result of the war. Labour cannot be supplied to the war-occupations unless the workers are drawn from alternative jobs which they have already been doing. Housewives may be required to take up certain jobs in offices, farms and factories etc. in order to relieve men to take up manly things. Acute shortages of labour are quite common during periods of war, particularly in the developed economies in which the percentage of labour normally unemployed is usually just 3-4 per cent of the total supply. It is not difficult to absorb the unemployed hands into occupations that come up to satisfy war-time needs.

The impact of war on the reduction of unemployment depends on two factors of decisive importance (a) the extent of expansion of opportunities and (b) the size of unemployment in the pre-war situation. If the former is big and the latter small, there would obviously be over-full employment during the war-period. If the former is of minor importance and the latter is also of minor importance, there

would be same reduction in unemployment the extent of which would actually depend on the relative dimensions of the two. Should size of unemployment be much too huge as in India today, a small preparation for war or war itself cannot solve the problem of unemployment—at any rate in toto. There would, of course, be a definite fall in the volume of unemployment but it may not be enough to bring the economy to a state of full employment. In spite of defence as well as development expenditure and the inflationary conditions in the Indian economy, we are still far from the ideal of full employment. Even well qualified technical baods have to wait for jobs for long periods of time. It is not that they do not accept the jobs that come their way because of their insistence on particular types of jobs, particular salary grades, particular places etc. The supply of labour seems to be in excess of the demand for labour. In other words, the rise in the demand for labour is not adequate to come into equilibrium with the demand for labour in spite of the war and in spite of the preparation for a big war with China as well as Pakistan.

Expenditure on defence is an important determinant of the creation of fresh employment opportunities. In recent years public expenditure in India has shown a remarkable increase not only because of the great increase in expenditure on development but also because of the enormous increase in defence expenditure. In the year 1950-51, defence expenditure stood at Rs 182 crores whereas in the year 1961-62, it rose to about Rs 312 crores. It was as much as Rs 692.5 crores in the year 1963-64. Currently our normal defence expenditure is likely to be around Rs 800 crores. With the perennial threat on our borders with China and Pakistan and the big American arms aid to Pakistan, India has no option but to increase the strength of her armed forces. We have to have a much bigger standing army, a much stronger air force and navy. Defence expenditure is bound to increase. Defence expenditure creates employment directly in the defence services and defence production and indirectly because of the income and employment multipliers.

The principle of income multiplier is based on the fact that somebody's expenditure becomes somebody else's income. Every piece of expenditure is also a piece of income. To the man that parts with money it is expenditure but to the one that receives, it is income. One can conceive of the first round of expenditure and

income, the second, the third etc. *ad infinitum*. The expenditure at the second, third, fourth etc. rounds of expenditure depends on the income-recipients' marginal propensity to consume and the marginal propensity to consume is rather strong in low-income countries and particularly the low income groups. In countries like India, the marginal propensity to consume is likely to be particularly strong in view of the fact that the bulk of the people are much too poor and hence, the income-multiplier is also likely to be rather strong. The stronger the income-multiplier, the greater would be the strength of demands for various types of goods and services. Defence expenditure as well as development expenditure stimulate the income multiplier so much so that the aggregate demand for goods and services keeps on rising. The class of goods for which demand grows the most is likely to be of necessities, since most of the people have still to struggle for the basic things of life. Defence expenditure implies, of course, some increase in the income of the higher income-groups as well and as such the demand for comforts and luxuries also keeps on rising. The most essential thing to keep in mind is that the aggregate demand for various commodities registers a big rise in the wake of growing defence-expenditure and the income multiplier effects following therefrom.

The impact on the demand for commodities is closely related to the demand for labour. It is a commonplace piece of knowledge in economic analysis that the demand for labour is derived from the demand for the goods and services which the workers produce. As the demand for commodities goes up, the demand for labour as well is all likely to increase, especially so in India.

The relationship between the demand for commodities and the demand for labour is direct and positive, *i.e.*, they rise and fall together. It does not mean, however, that they rise and fall simultaneously in the same proportion. For instance, a 10% rise in the demand for commodities may not mean always a 10% rise in the demand for labour. The actual rise in the demand for labour following the rise in the demand for commodities or the anticipated rise in the demand for commodities depends in point of fact on the techniques of production. To some extent more of production can always be done with the help of more of capital working with the same supply of labour. This argument assumes that the supply of labour is not increased by the use of more of capital.

The assumption may be true of highly advanced countries with a lot of surplus of capital and a comparative scarcity of labour but it is not likely to be true in the context of backward countries which suffer from a chronic scarcity of capital. The backward countries can at best organise a fuller use of the existing supply of capital, eliminate under utilised capacity and produce more of commodities to satisfy defence needs. The extent of this possibility depends on the measure of under utilised capacity as applied to the existing equipment.

The existing equipment cannot be better utilised, however, unless some more of labour is employed. For instance, when factories work for three shifts instead of two, the existing capital equipment in the form of buildings, machines and other installations would be more intensively employed but employment would increase in any case because of extra employment in the additional shift and the employment multiplier following therefrom. Employment of more of capital to produce more of goods is not a very feasible general proposition in context of a country like India in which there already exists a great scarcity of capital. Even if more of capital is to be employed, more of labour would be employed in the process of production of additional capital goods. Labour saving techniques postulate several conditions which are not likely to be feasible in India, excepting in some particular sectors of the economy. When labour is so cheap and capital so costly, there is no reason why the employers should not prefer labour-intensive techniques, if such techniques are profitable enough.

Defence expenditure produces certain consequences of great significance to the general level of prices. Generally, the prices of almost all the commodities keep on rising. Rising prices mean more of profitability if the rise in the cost structure does not offset the rise in sale prices. It is well known that wages lag behind the prices, during any period of inflation. This means that labour becomes relatively cheap. The employers stand to gain. Employment opportunities are likely to increase due to growing profitability and falling wage rates (in real terms). Defence is of great importance in reducing unemployment. The threat of war, though not war itself, is a great boon.

War and Prices

Given the framework of a free society, prices of goods and services would always be determined by the forces of demand and supply in periods of peace as well as war. The special impact of a war on the level of price makes itself felt through the radical nature of the changes in the conditions of demand and supply or through intervention of the government in the matter of distribution of commodities at controlled prices and through controlled channels. The exigencies of war may (and usually do) necessitate diversion of factors from employment in the production of civilian goods to the production of things required to meet the needs created by war. War affects the confidence of the entrepreneurs as well as the investors and the nature of the changes in confidence would have an incisive impact on the tempo of investment. The volume of employment would increase or the volume of unemployment would decline. The size of the national income in money as well as real terms would change. The expenditure of the government as well as the business and private households would increase on an unprecedented scale. Imports and exports are exposed to the dangers implicit in any situation of war. The impact of war is to be seen in almost every sector of the economy. The seriousness of the impact depends on the scale of the war and the duration of the war. The impact of the war must eventually be felt on the strength of demand for various goods and services and the elasticity of supplies of different commodities. Prices change because of the changes in demand and supply caused by war, when the market is allowed to function according to the normal rules of the game. We can take the various possible consequences of war in different sectors of the economy one by one and analyse what things are likely to happen, given certain basic assumptions. We shall lay down the assumptions and analyse the possible consequences.

Governmental Intervention. The government of a country engaged actively in a shooting war does not generally allow the market mechanism to work in its own way on the basis of adjustment of demand and supply. The government would have its own price-policy to implement not only in the public sector but also in the sphere of the private sector with regard to at least some of the 'essential' commodities. What is 'essential' and what is not, is to be settled by the government itself. The prices fixed by the authorities

for the goods and services directly under their control as well as for the essential goods produced in the private sector are so fixed on the basis of certain socio economic considerations and it is necessary to analyse what these considerations are likely to be

Prices of essential consumer's goods like wheat, rice, sugar, kerosene etc, are likely to be fixed not very much above the pre-war rates. If these prices are not pegged down to a certain ceiling on a statutory basis the profiteers are definite to pounce upon the opportunity to corner the markets, heighten the already existing scarcity of essential commodities, raise the prices and reap a fortune out of the misfortunes of the common people. Inflationary conditions would get reinforced further if the prices of essential consumer's goods are allowed to rise unchecked

Any significant rise in the prices of essential consumers' goods would provoke the workers to resort to agitation to obtain a rise in their wage rates to offset the rise in prices. The employers would be compelled to meet the demand of the workers because of the scarcity of labour which is all likely to exist during a period of war. Recruitment to the defence services and to the production of arms and ammunition and other military commodities would be done on such a large scale that there would be a considerable reduction in unemployment and if the pre-war volume of unemployment is not of a significant size unemployment is likely to be eliminated altogether. With the elimination of unemployment, the bargaining strength of the workers would increase and they would be in a strong position to exact better wages from their employers. Better wages invest the workers with more of purchasing power. Demand for wage-goods would go up and the prices would rise further. The spiral of rising prices has to be controlled. The key to the control of prices lies in controlling the prices of essential consumer's goods. The problem is with regard to the level of the ceiling to be fixed. The pre-war rates are likely to be the levels to be approved. The general adjustment of the pre war period provides the best basis for stabilising the prices. The government may resort to statutory rationing as well to ensure a fair distribution of essential commodities at reasonable prices. The conclusion that emerges is that war may compel the government to intervene into normal operations of the market to check undue rise in the prices. If the government chooses not to interfere or if the government is not in a position to undertake suitable measures to counter act the rise in prices, the market forces are certain to bring about a general inflationary situation. Inflation

is certain to occur because of certain reasons implicit in a war-situation.

Fighting a war is an extremely expensive affair. Enormous sums have to be spent on the defence-personnel as well as the military equipment. Arms and ammunition, transportation and the provision of vital services to the men on the front entail enormous expenditure. The supply of money with the people increases much more than the possible increase in real income, even if the existing capacity to produce were to be used to the maximum limits. War-situations are always characterised by the excessive growth of money-income over real income, not only because of the enormous increase in the expenditure of the government but also due to certain impediments in the path of improvement of production. The usual obstacles take the form of a shortage of labour, scarcity of raw materials, non-availability of adequate power and means of transportation and communications and disruption of supplies from outside the country due to enemy-piracy or torpedo-destruction on the seas. The shortages grow further for purposes of civilian production because of the diversion of resources to the production of the goods and services so urgently required to fight the war. As a result, real income always shows a tendency to fall behind monetary income in a period of war. The result is an enormous excess of demand over supply and the inevitable inflationary situation to be found during periods of war.

Besides the difficulties to be overcome in the path of augmenting production, there is also the possibility of destruction of production capacity caused by bombing. The power installations, railway stations, post-offices, bridges etc., become the special targets of attack by the enemies. Failure of power and transportation by itself may be sufficient to cripple the capacity to produce. In certain cases, even farming may be difficult if there is a large-scale uprooting of farmers, away from their land due to direct exposure to the dangers of war. Vast areas may remain uncultivated and hence, the agricultural supplies might fall. General difficulties caused by the failure of power and transportation would affect agriculture as much as industry.

The uncertainties caused by the war-situation would adversely affect the confidence of the entrepreneurs, as well as the investors. Stocks and shares and other assets fall in value. The investors are

not at all prepared to expose their capital to the risks of war. The entrepreneurs are likely to be rather reluctant to venture into new business in spite of the extremely favourable conditions of the market. They would be hesitant to undertake large scale investment in view of the risks of the war. Control over distribution becomes more profitable and less risky in periods of war and hence the commercial interests have the better of real industrial enterprise.

The uncertainties of war induce the government as well as the people to take to stock piling to meet unforeseen circumstances. The government wants to make certain that minimum of stocks are always maintained to meet emergency requirements. The consumers also get into the habit of stock piling because of the difficulties of obtaining things as and when they are required. The further rise in the prices is an additional reason to induce the consumers to buy much more than what they would normally do. The demand that follows brings about a rise in prices. Demand-raising factors and supply reducing factors together cause the rise of inflationary conditions.

Defence and Development

The Sino Pakistani collusion and conspiracy against India and our recent hostilities with Pakistan, have forced the issue of defence and development to the focus of attention. The conflict between the two postulates a basic difference between development and defence and the argument proceeds on the usual economic problem of choice between two alternatives, when the total resources are tightly limited and can be put to alternative uses. If more of resources be utilised in one direction, less would be available for expenditure in other directions. Defence needs are so urgent, particularly when we are required to depend on our own resources, that all other things have to be given a lower priority. The entire economy is to be defence oriented. It is felt that defence orientation necessarily means a certain sacrifice of development. The Budget of the Centre shows defence expenditure under non developmental expenditure. The point to note is that defence development is not taken in the classification of governmental expenditure as part of economic development. The fact has to be noted whether or not one agrees with the reasoning at the back of such a classification.

In point of fact, the classification is rather incorrect. Defence and development are mutually complementary. Weak and un

developed countries are very much ill-defended and countries not properly defended are likely to be exposed to the dangers of attack from outside and destruction of their own political and economic powers. Political exploitation of some of the currently under-developed economies has been one of the major reasons accounting for their 'underdeveloped' economic status today. Defence and peace are the inevitable preconditions for economic development. Economic development is also a basic condition for defence. Modern warfare is a highly scientific affair and it is scientific and material superiority that determines success or failure. Bravery is necessary but not enough. No amount of bravery and heroism can stand the atom-bomb. A country that is economically backward cannot afford to manufacture any of the modern means of war. It is forced to seek aid from outside and in the bargain lose quite a bit of its own freedom of action.

The dilemma over defence and development has to be squarely faced. The net expenditure of the Government of India on defence services came to Rs. 62.5 crores in the year 1963-64 and Rs. 717.8 crores in the year 1964-65. The total revenue receipts in the same years came to Rs. 247.2 crores and Rs. 293.2 crores (budget estimates). In the year 1963-64, the percentage of revenue spent on defence comes to about 28.5% whereas that in the next, to about 40.8%. Defence expenditure stood at only about Rs. 182 crores in the year 1950-51 and in the year 1961-62, it rose to about Rs. 3120 crores and to Rs. 692.5 crores in the year 1963-64. The expenditure in the year 1964-65 is nearly 4 times that in the year 1950-51. In the year 1963-64, half the 'capital-expenditure' is there on defence. This is the normal defence expenditure. In times of war, it is obvious that expenditure on defence should be several times the normal expenditure. The combined threat of China and Pakistan is forcing India to spend heavily on building up her defences. In the years to come, our defence expenditure is bound to mount more and more and the country has to bear the burden of both defence as well as development.

It would be wrong to conclude on the basis of the figures of defence expenditure that India's expenditure on defence services is abnormally heavy. The following table gives a comparative picture of the percentage of national income spent on defence in some of the countries :

Defence expenditure as per cent of National Income

	1950 (1953)	1955	1960	1961	1962
Canada	10.0	9.0	6.1	6.3	5.2
France	—	6.5	7.4	7.2	6.4
W Germany	5.9	4.4	4.2	4.7	5.5
UK	8.0	10.2	7.9	8.2	8.2
USA	6.1	12.2	11.3	11.9	11.9
Pakistan	3.7	4.1	4.3	4.0	—
India	1.8	1.9	2.0	2.1	3.1

It is apparent from the table that India is the country from among the group that has been spending the lowest percentage of national income on defence services. Pakistan has been spending more than 4% of her income on defence. Besides Pakistan receives enormous amount of military aid from the USA. Figures of China (Mainland) are not available. There is however every reason to believe that China spends on the armed forces as big a percentage of her national income as do some of the advanced countries like Canada, UK and USA. In fact China is all likely to be spending much more. If we are to meet the combined threat of China and Pakistan simultaneously we have no option but to spend a large proportion of our income to strengthen our defence services. Orientation towards defence is likely to hamper the progress of non defence activities since the total investible resources in our country are rather limited.

Our taxable capacity is rather limited mainly due to the low income of our country. In the year 1962 UK government taxed away nearly 35% of the national income, USA about 27%, Canada 17%, France 25%, W Germany about 2% whereas India could tax away only 12% of the national income. This should not be a matter for surprise in view of the extremely low level of our income and the need for ensuring a little better standard of living to improve the efficiency of our people. If our resources are so limited the problem is how to pay for defence as well as development.

We shall take up the principal objectives of the second and the third plans and see whether the extra ordinary needs of defence are likely to hamper the realisation of those objectives. The major objectives of the second plan have been defined as follows

- (a) a sizeable increase in the national income so as to raise the level of living in the country ;
- (b) rapid industrialisation with particular emphasis on the development of basic and heavy industries ;
- (c) a large expansion of employment opportunities ; and
- (d) reduction of inequalities in income and wealth and a more even distribution of economic power.

The major objectives of our third plan have been as follows :

- (1) to secure a rise in national income of over 5 per cent per annum, the pattern of investment being designed also to sustain this rate of growth during subsequent plan period ;
- (2) to achieve self-sufficiency in foodgrains, and increase in agricultural production to meet the requirement of industry and exports ;
- (3) to expand basic industries like steel and chemicals, fuel and power and establish machine-building capacity, so that the requirements of further industrialisation can be met within a period of 10 years or so mainly from the country's own resources ;
- (4) to utilise to the fullest possible extent the man-power resources of the country and to ensure a substantial expansion in employment opportunities ; and
- (5) to establish progressively greater equality of opportunity, and to bring about reduction in disparities in income and wealth and a more even distribution of economic power.

The primary objective of every plan of economic development, is to raise the national income or to build up the capacity to produce. National income refers to the flow of all the goods and services in the course of a year, regardless of their class or type. Welfare-oriented plans would bring about a radical change in the composition of the national output. The choice would have to be in favour of guns, rather than butter. Military requirements would receive the top preference. The impact of priority to defence projects is likely to be seen not so much in the size of the national income as in the changes in the composition of the income.

Self-sufficiency in foodgrains is emphasised as the second objective of the third plan. The implication of this would be that suitable steps would be taken to produce the requisites of agricultural production in the form of fertilisers, irrigation engines and

pumps, or canals or other facilities, agricultural tools and implements etc. How are we going to produce agricultural requisites of production, unless more of resources are allocated to this purpose? Can we afford to allocate more of resources to this line of production, when the resources have to be allocated on a much larger scale to the production of military hardware? That is the nature of the tie between defence and development.

The development of basic industries and the expansion of employment opportunities is the common possible objective of both defence and development. The nature of employment opportunities would change with defence orientation and the end use of industrial products would also change. Steel and power, for instance, would be used mainly to meet the needs of defence forces. Employment opportunities would expand in particular lines concerned with defence. Reduction of inequalities as an objective is likely to be pushed to the background with the emphasis on defence.

War and International Trade

Historical experience of the world reveals that there exists a correlation between war and international trade. 'War' in this context should cover not only periods of active hostility or periods of actual fighting but also periods of preparation for war. The so called cold war is nothing but a preparation for the shooting war to ensue. The cold war period does not seem to have any beginning or end since no country is completely free from the danger of war at any period of time. That is the reason why every country is compelled to maintain huge defence forces and spend on them enormous sums of money, even though much more pressing needs such as shortage of food, clothing, housing etc. stare in the face and claim for immediate attention. No country need have recognised and declared enmity with the neighbours or opponents in the world on some account or the other, to engage itself in building up the defences. It is always assumed that some danger or the other is always there round the corner. Defence preparations have to be made as a matter of normal course on the assumption that a defenceless country is always liable to fall a prey to some stronger nation or the other. Wantoo international invasions are not so common today as they used to be in the past, but the possibility of such invasions is never ruled out. As yet, there is no international mechanism to check a strong nation when it chooses to invade some

other country. There is no guarantee of protection. Nations have to depend primarily on their own strength or the strength of their allies, if any, to ensure self-protection. The logic of defence is of profound importance in understanding the connection between war and international trade.

Normal defence-preparations have to be intensified during a period of active war or when war is quite imminent as between India and Pakistan or India and China today. Any intensification of the preparation for a war postulates a certain definite orientation of internal production as well as imports and exports. In fact the entire development plan of a country may be oriented towards the achievement of political security in the context of a perennial military threat from outside.

Arms and ammunition and other military equipment required to keep the fighting forces ready for battle have to be obtained from somewhere as a matter of vigilance and defence-preparedness. Warfare today is no longer a matter of personal prowess and heroism as in the past, though bravery is of great importance. Today's warfare is more of a scientific nature and hence, the nature of the weapons employed in destroying the enemy is of the utmost importance. Nations that do not produce the arms and ammunition and other military hardware within the country are compelled to get them from outside.

Some countries manage to get the necessary military equipment by way of free aid from their allies. There is a certain reciprocity. The aid is given on certain conditions. Pakistan for instance has been able to get enormous military aid from U.S.A. by offering the Americans military bases against the U.S.S.R. and China. In the context of international trade, what matters is the fact that crores and crores of rupees worth of cargo is received by Pakistan without any need to pay for the same. If Pakistan were to buy all the things that she has been able to receive free, the pattern of her trade-relations with the world outside would have been totally different. In fact, it would have been impossible for Pakistan to pay for her imports and she would never have been able to buy arms and ammunitions on such a large scale. Not all countries can get military assistance totally free like Pakistan. Generally countries have to pay for what they get.

The constant threat of war compels countries to keep themselves right in the midst of a war hysteria and thus, there is always

a scramble for obtaining war-material from wherever things are available. The constant preparation for a war brings about a big increase in the demand for arms and ammunition and the countries with a big potential to produce war material find an excellent international market. In fact, some of the countries keep on exciting historical feuds between nations in order to push them into a war and to create a market for their wares. U.K. is the example of a country that keeps on fanning fires in different parts of the world in order to find a market for some of her exports. The greater the demand, the greater would be the market and the better the prices. The exporters always stand to gain.

Countries preparing for a war are compelled to import war-materials in addition to their normal imports of other commodities. Their total import bill goes up because of increasing imports and rising prices. It is, therefore, quite common for such countries to be running into a deficit on the balance of payments account. Countries like India in particular, would be running into much greater deficit than before. Developing countries like India have to import such goods, heavy chemicals, industrial raw materials etc. in order to implement their normal programme of development. Even without the special needs of war, there is a deficit on the balance of payment account and the war augments the existing deficits all the more. There is a compulsion either to export more to pay for increased imports or to cut down the imports of non-military commodities. Either way the developing countries preparing for a war would be on the horns of a dilemma. If they decide to cut down imports of the non-military type, they would be sacrificing a part of their development programme and if they decide to import both the military as well as the non-military types of goods, they are compelled to seek markets for their own exports to earn foreign exchange to pay for their imports.

Export earnings could be maximised either by increasing the value of exports or by securing better terms of trade. The export market is generally of a competitive type. Rarely there exists a monopoly over one or two commodities. India, for instance, has a monopoly over almost only one commodity—jute. There are competitors for all other commodities. In order to increase the value of exports we have to either reduce our export-prices, improve the quality of our export or incur additional expenses over organising sales. In any case, it would mean reduced net earnings per unit. To improve the quality of exports, some more of cost has to be incurred on

the commodities more attractive. To be able to sell more in the market outside expenses have to be incurred on more of advertising and persuasion of customers. When a country is too eager to export, the market that the country has to face becomes a buyer's market. Exports may increase but export-earnings may not. Defence imports have to thus compete with non-defence imports.

Defence and development come into conflict in a rather sharp kind of way. Much of defence today depends on industrial development. The underdeveloped countries cannot hope to industrialise themselves unless they obtain some substantial imports of capital goods and skills from outside. In the initial stages of their development, if they have to face a big deficit on the balance of payments account and adverse terms of trade, they would not be able to get the basic wherewithal for their industrial development. Defence needs would receive the top-priority and that itself would be an obstacle to economic development.

When a shooting war breaks out as between India and Pakistan, international trade between the two countries comes to a stand-still. In so far as India happens to be almost a monopolistic buyer of certain commodities from Pakistan, there would be a big fall in the prices of such commodities when India stops buying the things. Jute-prices in East Pakistan would crash to extremely low level when the Pakistani farmers cannot sell their jute in India. Every effort is made by the farmer to smuggle it through the borders and in so far as jute can be thus stealthily obtained, the Indians stand to gain. A shooting war on a global scale interrupts international trade. The ships may be blown off by enemy submarines or they may be seized by the enemy. The cargo may be confiscated. There may be organised piracy on the international water-ways. A shooting war disrupts all means of transportation and communication and obstructs international trade.
